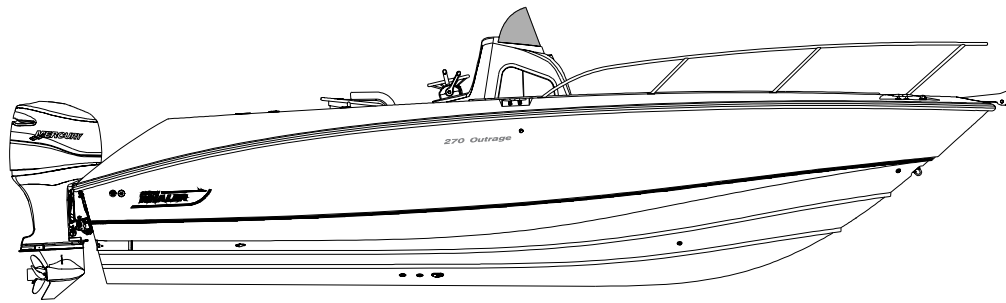


270 Outrage



**“The mission of Boston Whaler is to
provide consumers with the
safest, highest quality, most durable
boats in the world”**

Rev B 05/19/04

INFORMATION IN THIS PUBLICATION IS BASED ON THE LATEST PRODUCT SPECIFICATIONS AVAILABLE AT PRINTING, BOSTON WHALER® BOATS, INC. RESERVES THE RIGHT TO MAKE CHANGES AT ANYTIME WITHOUT NOTICE, IN THE COLORS, EQUIPMENT, SPECIFICATIONS, MATERIALS AND PRICES OF ALL MODELS, OR TO DISCONTINUE MODELS. SHOULD CHANGES OR MODIFICATIONS TO THE MODELS BE MADE BOSTON WHALER® IS NOT OBLIGATED TO MAKE SIMILAR CHANGES OR MODIFICATIONS TO MODELS SOLD PRIOR TO THE DATE OF SUCH CHANGES. THE FOLLOWING ARE REGISTERED TRADEMARKS OF THE BRUNSWICK CORPORATION:
270 OUTRAGE, BOSTON WHALER®. MRP #1687665

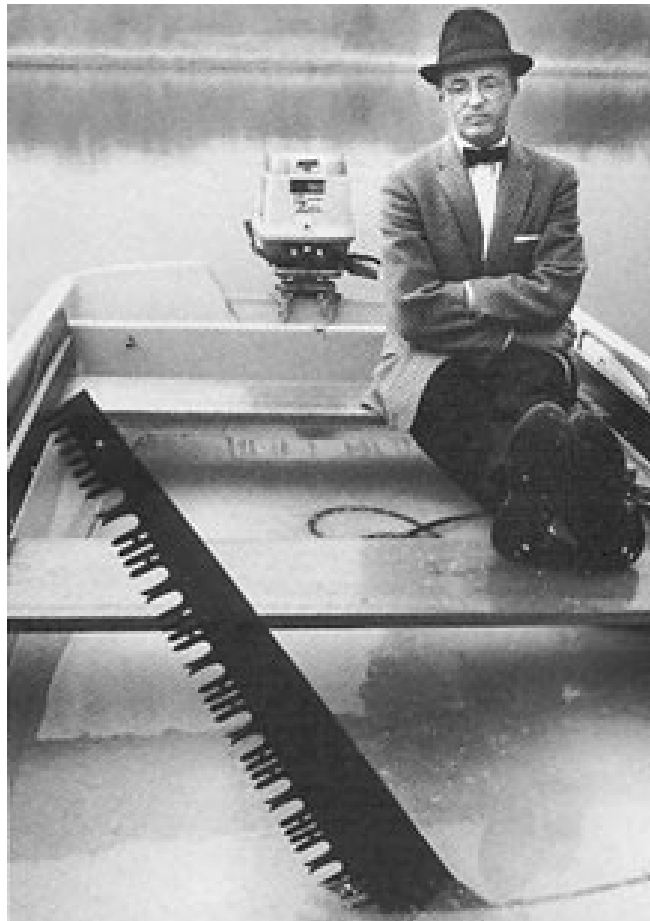
Introduction

This Owner's Manual has been written to provide specific information about your boat and it should be read carefully. Keep this booklet in the Owner's Manual Packet. The Owner's Manual Packet has been compiled to help you operate your boat with safety and pleasure. It contains details of the boat, the equipment supplied or fitted, it's systems and information on it's operation and maintenance. Please familiarize yourself with the boat and it's operation before using it. If this is your first boat, or you are changing to a type of boat you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before "assuming command" of your boat. Your Boston Whaler® dealer or local Yacht Club will be pleased to advise you of marine safety classes and safe boating classes in your area.

History

In 1958, company founder Richard T. Fisher introduced the first Boston Whaler boat in Braintree, Massachusetts. It featured two significant innovations: first, its twin sponson hull design produced superior stability and a remarkably dry ride; second, its unique foam core construction made the boat not only durable, but unsinkable as well. Fisher took every opportunity to illustrate the unique characteristics of the Boston Whaler. His most famous demonstration was captured in 1961, by *Life Magazine*. The series of photographs showed the boat underway, the boat being sawed in half and ultimately Fisher motoring away in the remaining half of the boat. And through the years many other demonstrations have proved the toughness and durability of the Boston Whaler hull. And though you may never cut your boat in half, this only goes to show one thing, people whose livelihood and lives depend on boats consistently choose Boston Whaler because of their seaworthiness, dependability and the inherent safety of a hull that won't sink even if severely damaged. Boston Whalers are built to last. For over 40 years Boston Whaler® has strived to make each model better, providing you with a safe and fun boating experience. That is the reason we offer a 10 year limited transferable warranty. It is also an excellent reason why you can trust the safety of your family and friends to a Boston Whaler.

PLEASE KEEP THIS BOOK AND OTHER MATERIALS IN A SECURE PLACE, AND BE SURE TO HAND IT OVER TO THE NEW OWNER IF YOU SELL THE BOAT.



Boston Whaler founder Richard T. Fisher demonstrating one of the features that has made Boston Whaler the "Unsinkable Legend" in this 1961 LIFE Magazine Photo.

Richard T. Fisher was posthumously inducted into the National Marine Manufacturer's Association (NMA) Hall of Fame on September 26, 1996 for accomplishments made in marine engineering and construction.

270 Outrage-Owner's Manual

Table of Contents

Section 1-270 Outrage

Table of Contents	1
Construction Standards	2
Our Hull	2
Servicing your Boston Whaler	2
Hull Identification Number	2

Section 2-General Arrangements & Specifications

Specifications & Dimensions	3
Standard Features	4-5
Notable Options	6-7
Through-hull Fittings	8
Storage	9
Standard/Optional Seating	10
Label Location	11
Deck Occupancy	11

Section 3-Fuel System

Fuel System Diagram	12
Fuel Tank	12
Fuel Fill	12
Rigging Trough	12
Fuel Vent	13
Empty Tank	13
Hoses & Fittings	13
Tank Cleaning	13
Remote Oil System	13
Static Electricity and the Fuel System	14

Section 4-Electrical System

Battery Information	15
Battery Maintenance	15
Dual Battery Switches	16
Console Wiring Diagram	17
Hull Wiring Diagram	18
Breaker Panel Wiring Diagram	18
Standard Battery Wiring Diagram	19
Optional Battery Wiring Diagram	19
Ignition Shutdown Safety Switch	19
Standard Instrument Panel	20
Deluxe Instrument Panel	20
Analog Instrument Panel	20
DTS® Instrument Panel	20
Breaker Panel	21
Ship to Shore Power, (optional)	22
Operation	22
Battery Charger, (optional)	22
12 Volt Accessory Receptacle	22
Navigation Lighting	23
Operation	23

Section 5-Freshwater System

Water System	24
Freshwater Pump	24
Freshwater shower	24
Cockpit Sink	24
Maintenance	24
Winterizing the System	24
Disinfecting the System	25

Section 6-Raw-water & Waste System

Raw Water	25
Operation/Maintenance	25
Livewell, (Standard)	25
Operation	25
Standard Livewell Diagram	26
Livewell, (Optional)	26
Operation/Maintenance	26
Optional Livewell Diagram	27

Bilge Pumps	27
Operation/Maintenance	27
Aft Bilge Pump Diagram	27
Forward Bilge Pump Diagram	28
Head System	28
Shoreside Discharge	29
Macerator/Overboard Discharge	29
Sani-Potti Unit Diagram	29
Standard Head Arrangement	29
Optional Sani-Potti Unit w/ Deck-Pump-out and Overboard Discharge	29
Optional Marine Head w/ Deck Pump-out, Holding Tank & Overboard Discharge	29

Macerator	
Operation/Maintenance	30
Environmental Considerations	30

Section 7-Propulsion System

Hydraulic Steering Information	31
Operation/Maintenance	31
Power Steering Information	31
Gear Shift & Throttle Control	31
Digital Throttle/Shift DTS®	32
Power Trim Operation	32
Engine Starting Procedure	32
Propeller Information	33
Propeller Assembly	33

Section 8-Getting to know your Boston Whaler

Trim Tabs	34
Operation/Maintenance	34
Mooring Points	35
Lifting	35
Hull Maintenance	36
Hull Maintenance (Blisters)	36
Bottom Painting	36
Painted Hull Care (Bottom)	37
Vinyl Cushion Care	37
Long Term Storage	37
Engines	38
Fuel System	38
Trailer Storage	38
Electrical System	38
Drainage	38
Canvas Care & Maintenance	38
Trailer (Optional)	39
Trailer Safety	39
Bunk Trailer Terminology	39

Section 9-Anchoring Information

Anchoring Information	40
Lowering	40
Setting	40
Weighing	40
Anchor Windlass (optional)	41
Operation	41
Raising	41
Emergency Operation	41
Lowering	41

Section 10-Maintenance Log & Notes

Maintenance Log & Notes	42
-------------------------	----

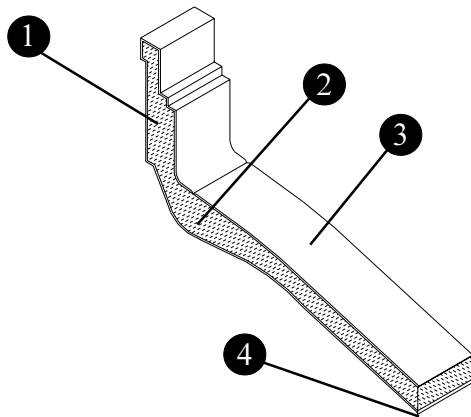
270 Outrage-Owner's Manual Construction Standards

"THE MISSION OF BOSTON WHALER IS TO PROVIDE CONSUMERS WITH THE SAFEST, HIGHEST QUALITY, MOST DURABLE BOATS IN THE WORLD".

We are dedicated to creating a superior product providing you with comfort, performance, safety and dependability. All of our boats comply with the safety standards set by the United States Coast Guard and are designed, engineered and manufactured in accordance with applicable recommendations and guidelines of the American Boat and Yacht Council (A.B.Y.C.) and certified by the National Marine Manufacturers Association (N.M.M.A.).

Our Hull

- ① No air voids
- ② High density closed cell non-absorbent foam
- ③ High quality resins and gelcoats
- ④ Woven glass matting



Boston Whaler® hulls are constructed with our patented Unibond™ construction. This involves shooting high density foam into a closed mold system. The foam expands to fill voids in the hull, and when the finished product is pulled from the mold, the deck and the hull are chemically bonded to form a solid, inseparable unit.

Servicing your Boston Whaler

When your 270 Outrage needs to be serviced or regular maintenance is needed, it should be taken to an authorized Boston Whaler® dealer.

To find a Boston Whaler® dealer in your area call:
1-800-942-5379

Domestic/International

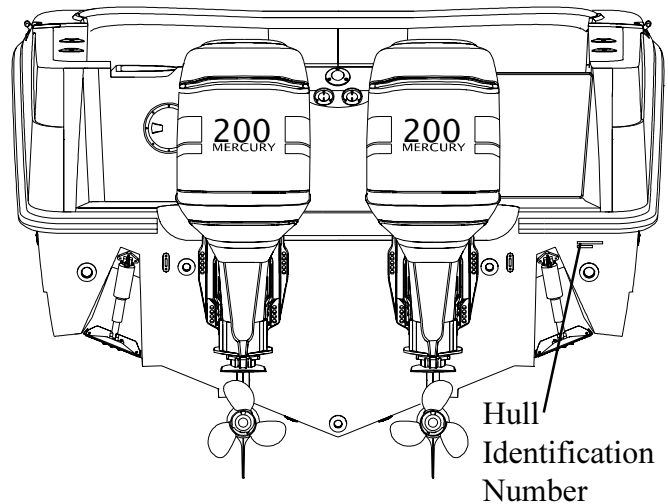
If a problem is not handled to your satisfaction:

Discuss any warranty related problems directly with the service manager of the dealership or your sales person. Give the dealership an opportunity to help the service department resolve the matter for you.

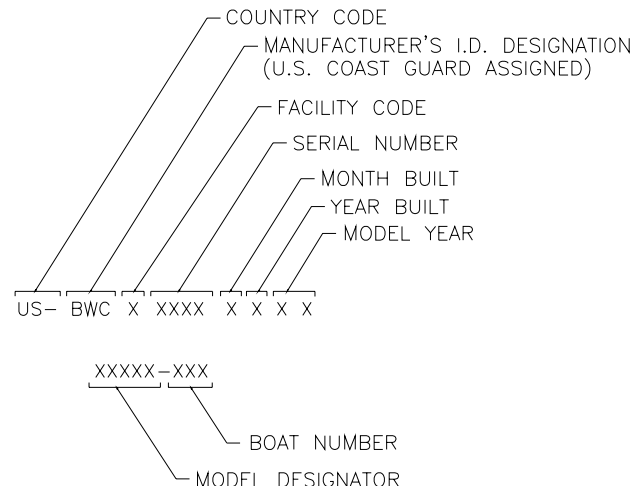
Hull Identification Number

The "Hull Identification Number" is located on the starboard side of the transom wall.

This is the most important identifying factor and must be included in all correspondence related to your vessel. Failure to do so will only create delays. Also of vital importance are the engine serial numbers and part numbers when writing about or ordering parts for your engine.

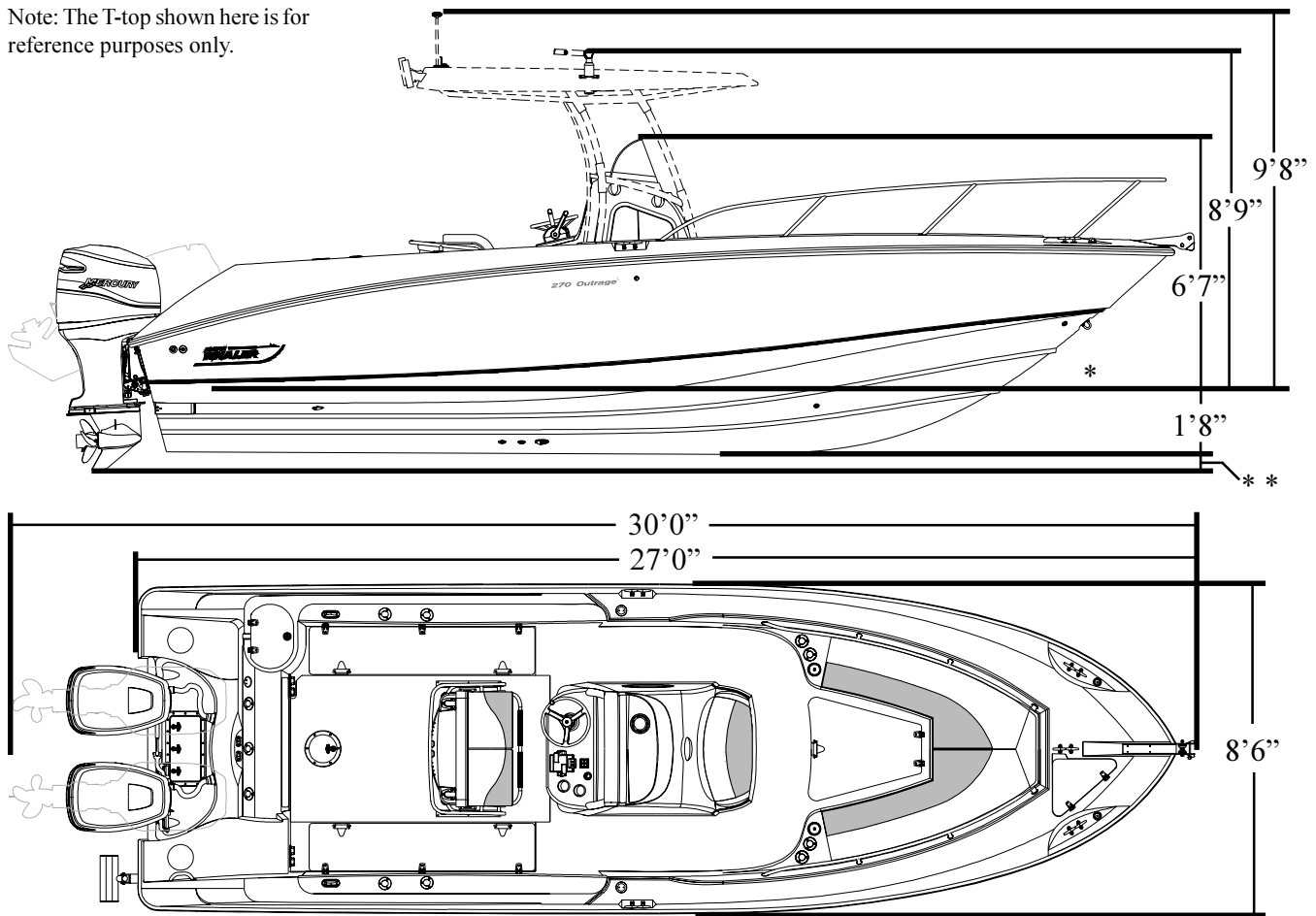


Typical H.I.N. Description



270 Outrage-Owner's Manual

Note: The T-top shown here is for reference purposes only.



Specifications & Dimensions

Overall Length	27'0"	8.22	m
Trailerable Length	30'0"	9.14	m
Bridge Clearance	8'9"	2.94	m
Bridge Clearance (no top)	6'7"	2.00	m
Beam	8'6"	2.59	m
Draft, (Hull Only)	20"	.50	m
Weight (dry, no engine)	5160 lbs.	2340	kg
Swamped Capacity	5700 lbs	2585	kg
Maximum Engine Weight	1220 lbs.	556	kg
Maximum Weight, (passengers, engine(s), gear,**)	4300 lbs	1950	kg
Persons	14		
Maximum Horsepower	500HP	372	kw
Minimum Horsepower	400 HP	298	kw
Fuel Capacity	200 gal.(U.S.)	757	L
Water Capacity	20 gal.(U.S.)	75	L
Waste Capacity	10 gal.(U.S.)	37	L

* Waterline

*** Engine Draft,(See Notice)



NOTICE

Specified measurements are approximations and are subject to variance.

**



NOTICE

Exceeding this weight will affect the boat's performance. DO NOT Exceed the weights listed on the capacity plate.



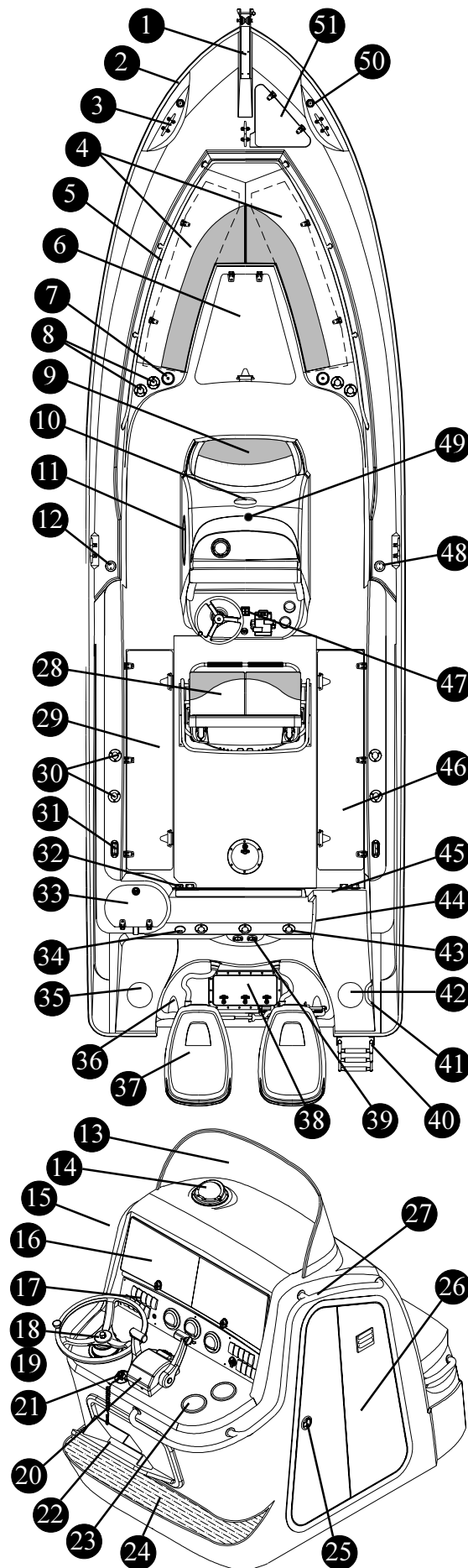
NOTICE

Optional equipment and loading of the boat will affect the draft measurements. Follow the recommendations listed on your capacity plate regarding the maximum amount of weight the boat can safely carry.

270 Outrage-Owner's Manual

270 Outrage Standard Features

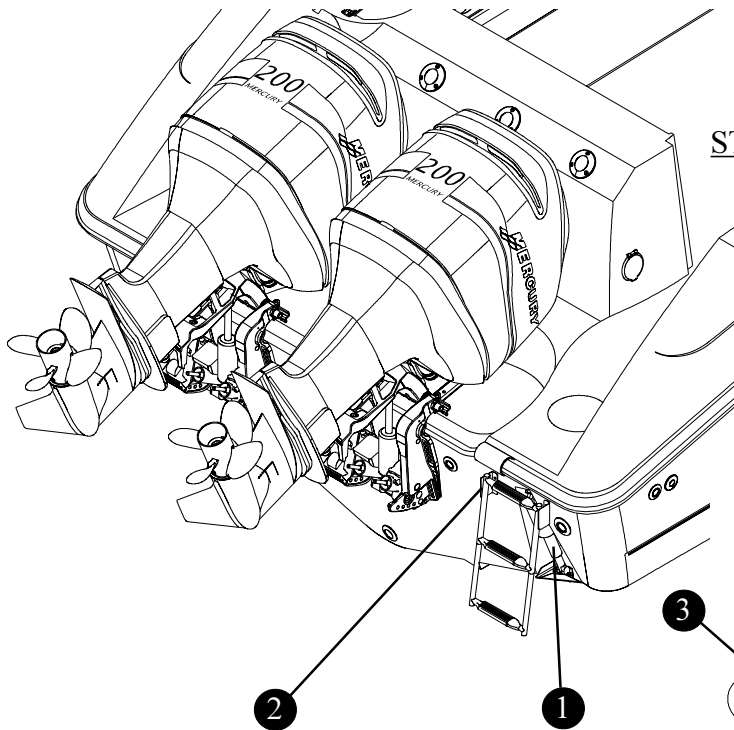
- 1 Anchor roller w/ chafe plate
- 2 Heavy duty rub rail
- 3 8" cleats, 2 bow, 2 spring, 2 stern, 1 anchor locker
- 4 Port & starboard forward seating/storage under
- 5 Stainless steel forward rails
- 6 Forward in-deck storage w/ hatch & drainage
- 7 Forward cupholder, port & starboard
- 8 Forward rodholders, port & starboard
- 9 Forward console seat w/ cushion & backrest
- 10 Electric horn
- 11 Console portlight
- 12 Fuel fill
- See Console Detail
- 13 Molded tempered glass windshield
- 14 Compass
- 15 Stainless steel console grab rail, Port
- 16 Lockable electronics box
- 17 Instrument panel
- 18 Hydraulic steering, Helm
- 19 Stainless steel steering wheel
- 20 Throttle/Shift control
- 21 Engine shutdown safety switch w/ lanyard
- 22 Console pullout storage bin
- 23 Console drinkholders
- 24 Helm & passenger footrests
- 25 Console door lock
- 26 Bi-fold console door
- 27 Stainless steel console grab rail, Starboard
-
- 28 Leaning post seat w/ storage under
- 29 Port insulated in-deck fishbox w/ pump-out
- 30 Gunwale mounted rodholder, (4)
- 31 Stainless steel hawse pipe
- 32 Aft cockpit drains, (4)
- 33 Livewell
- 34 Freshwater fill
- 35 6" access plate, Port
- 36 Motorwell drains, (2)
- 37 200 HP Dual engine's
- 38 Motorwell access hatch
- 39 VRO oil fill, (2)
- 40 Swim ladder, Telescoping
- 41 Stainless steel grab handle
- 42 6" access plate, Starboard
- 43 Transom mounted rodholders, (3)
- 44 Freshwater shower nozzle
- 45 Transom door
- 46 Starboard insulated in-deck fishbox w/ pumpout
- 47 Electric trim tab switches
- 48 Waste pump-out deck fitting
- 49 Navigation lighting, Console
- 50 Navigation lighting, Bow
- 51 Anchor locker storage



270 Outrage-Owner's Manual

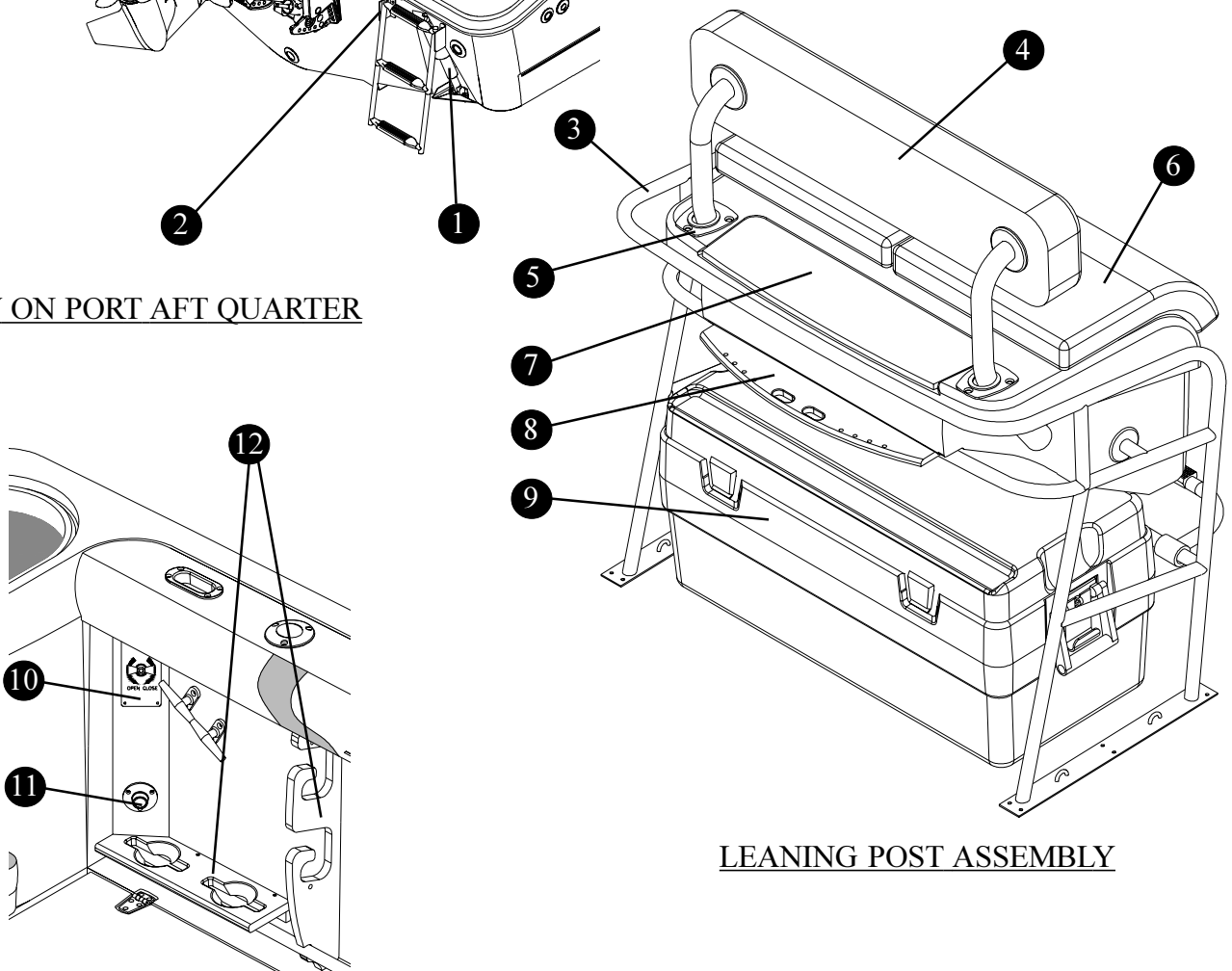
270 Outrage Standard Features (cont'd)

- ① Electric trim tabs
- ② Swim ladder, telescoping
- ③ Leaning post frame
- ④ Leaning post backrest
- ⑤ Leaning post rodholders, (2)
- ⑥ Leaning post seat cushion(s) w/ storage under
- ⑦ Leaning post cutting board w/ storage under
- ⑧ Leaning post hook/knife holder
- ⑨ 94 Qt. (89L) Igloo cooler
- ⑩ Livewell flow adjustment valve & panel
- ⑪ Raw water washdown hose connect
- ⑫ Under gunwale rodracks w/ cannon ball storage

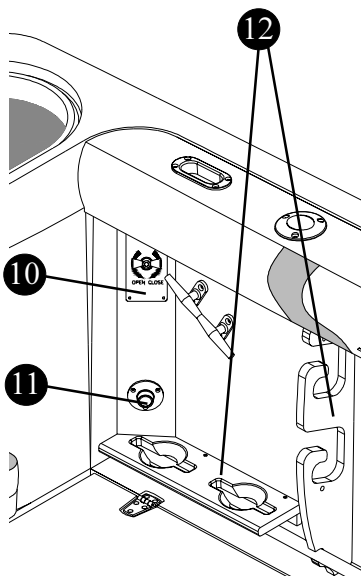


STARBOARD QUARTER VIEW

VIEW ON PORT AFT QUARTER

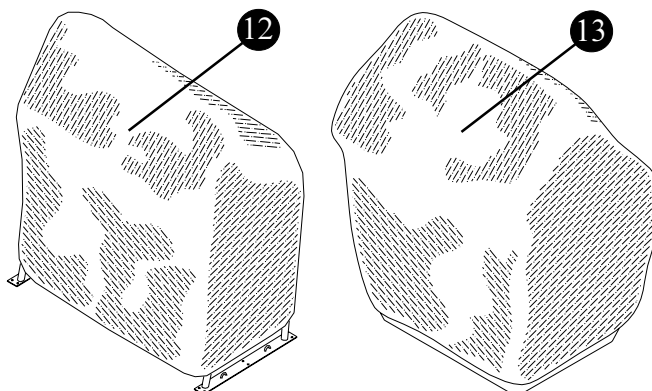
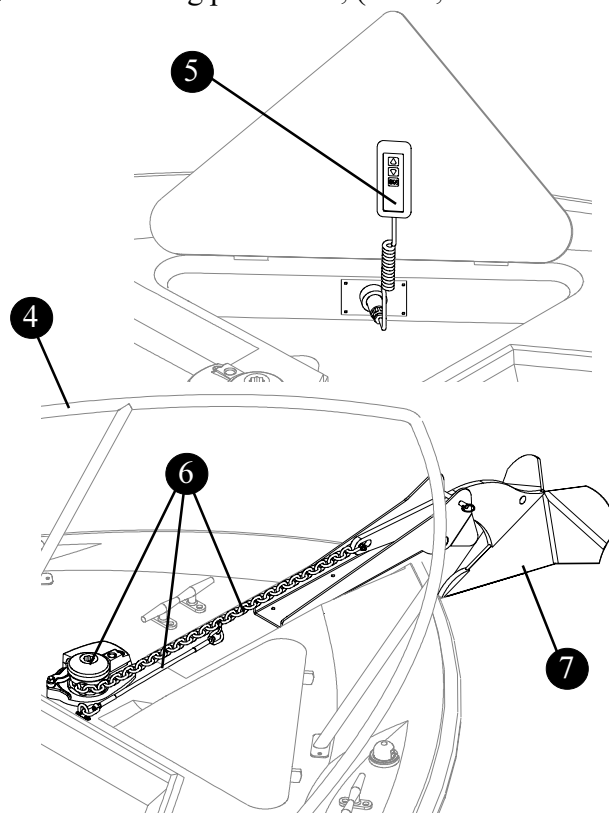
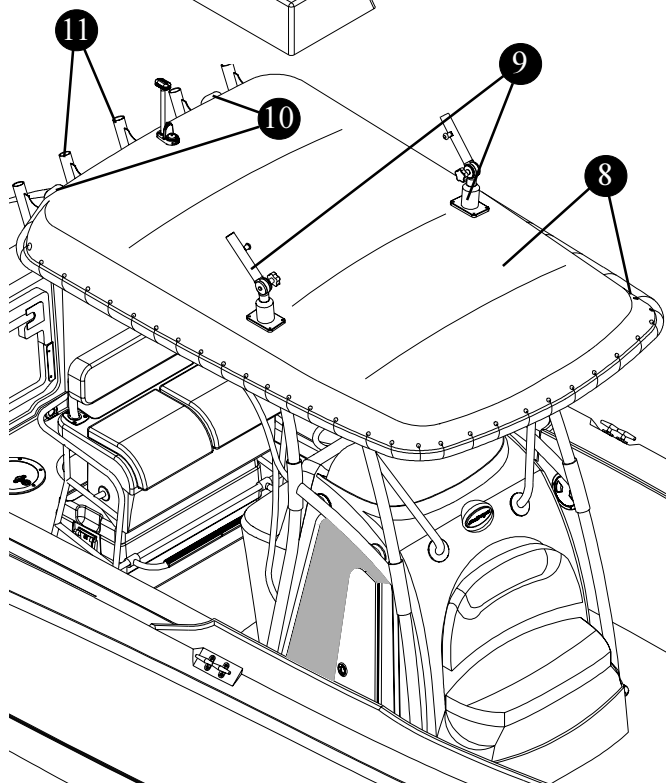
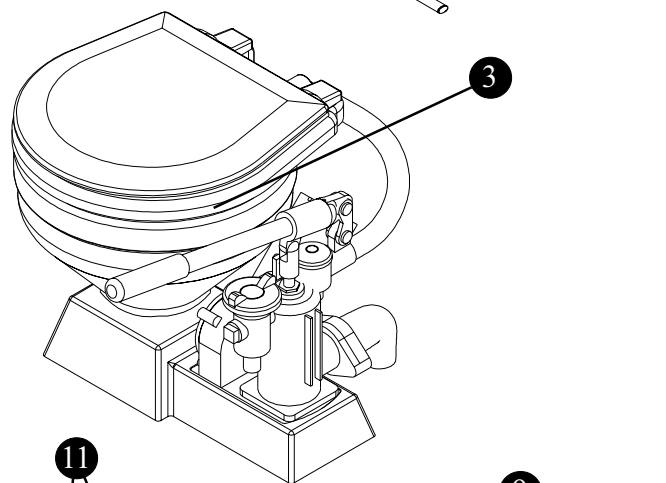
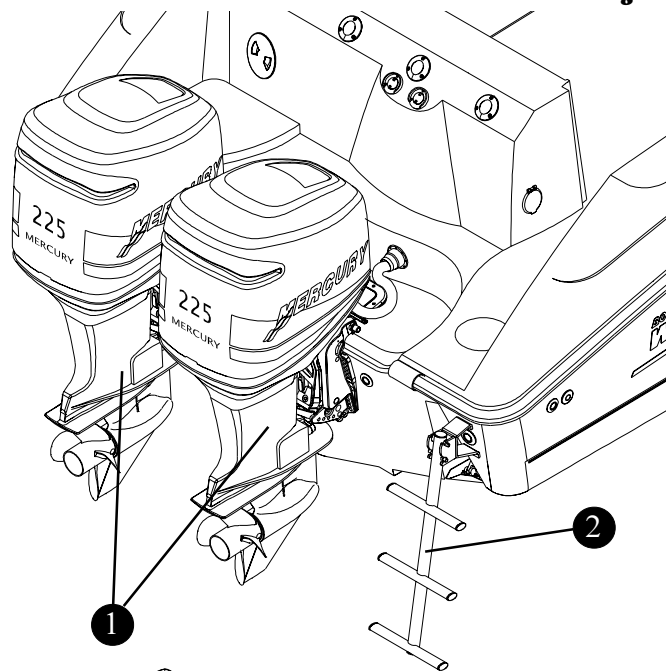


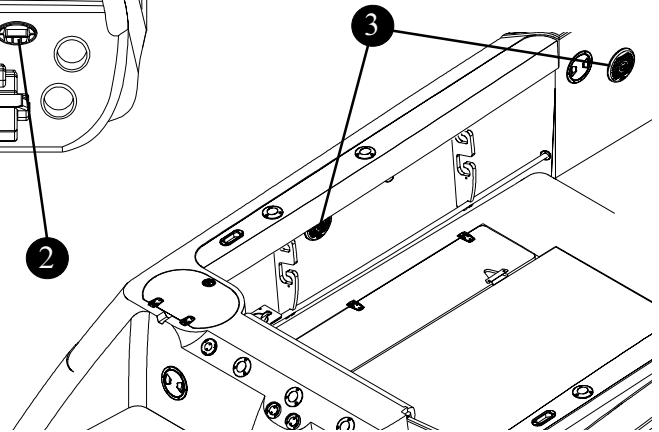
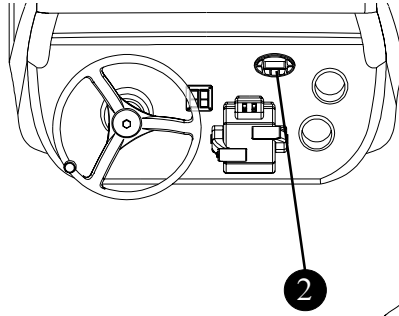
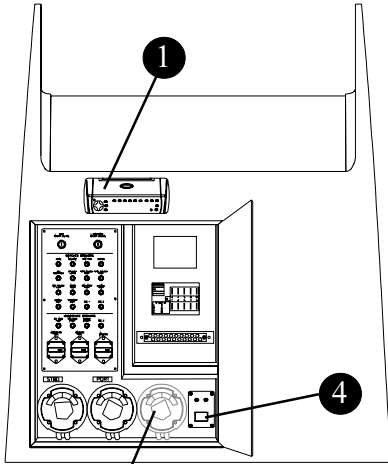
LEANING POST ASSEMBLY



Notable Options

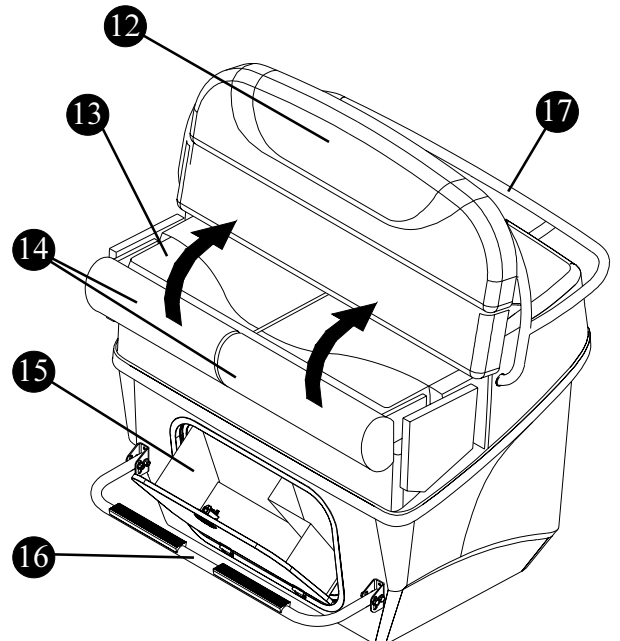
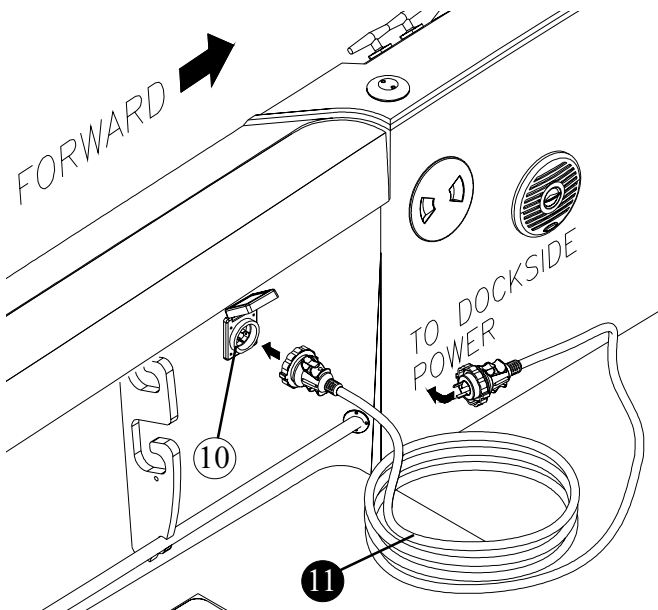
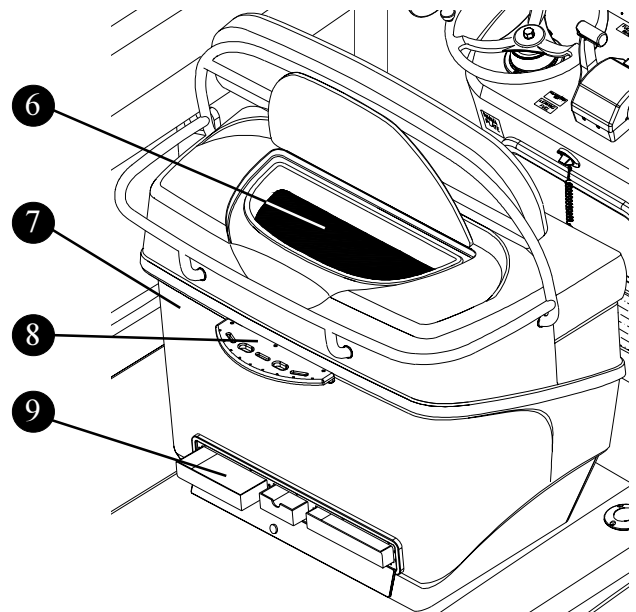
- ① 225 HP Dual engine's
- ② Dive ladder
- ③ Marine head w/ pumpout & overboard discharge
- ④ Stainless steel bow rail
- ⑤ Anchor windlass hand remote
- ⑥ Anchor windlass, rode and anchor lanyard
- ⑦ Anchor is shown for reference only
- ⑧ T-top canvas and aluminum frame, (black, white or blue)
- ⑨ Radial outriggers, port & starboard
- ⑩ Spreader lights, (2)
- ⑪ "Rocket launcher" rodholders, (4)
- ⑫ Leaning post canvas cover, (black, white or blue)
- ⑬ Deluxe leaning post cover, (black, white or blue)





Notable Options

- ① AM/FM Digital stereo w/ CD
- ② Stereo remote at helm
- ③ Waterproof speakers, (2 port, 2 starboard)
- ④ Shore power monitor panel
- ⑤ Battery switch, (third)
- ⑥ 37 Gal.(140L) Livewell
- ⑦ Livewell base
- ⑧ Knife/Leader holder
- ⑨ 3-Drawer tackle box
- ⑩ Shore power connection, 125V/30A
- ⑪ Shore power cord, 50 ft.(15.2m)
- ⑫ Deluxe leaning post backrest
- ⑬ Deluxe leaning post seat
- ⑭ Deluxe leaning post folding bolster, helm & passenger
- ⑮ Deluxe leaning post pullout storage bin
- ⑯ Deluxe leaning post footrest
- ⑰ Deluxe leaning post grabrail



270 Outrage-Owner's Manual



NOTICE

The deck drain provides self-bailing capabilities while the boat is static in the water and no passengers on board. This feature prevents the accumulation of water in the cockpit. the drain must be in place when underway.



NOTICE

Depending on the type of boat you have, you may have underwater fittings that need drain plugs. Garboard drain plugs and fishbox drain plugs need to be in place before the boat goes into the water. Any fitting that will be underwater needs to be plugged or the seacock needs to be closed



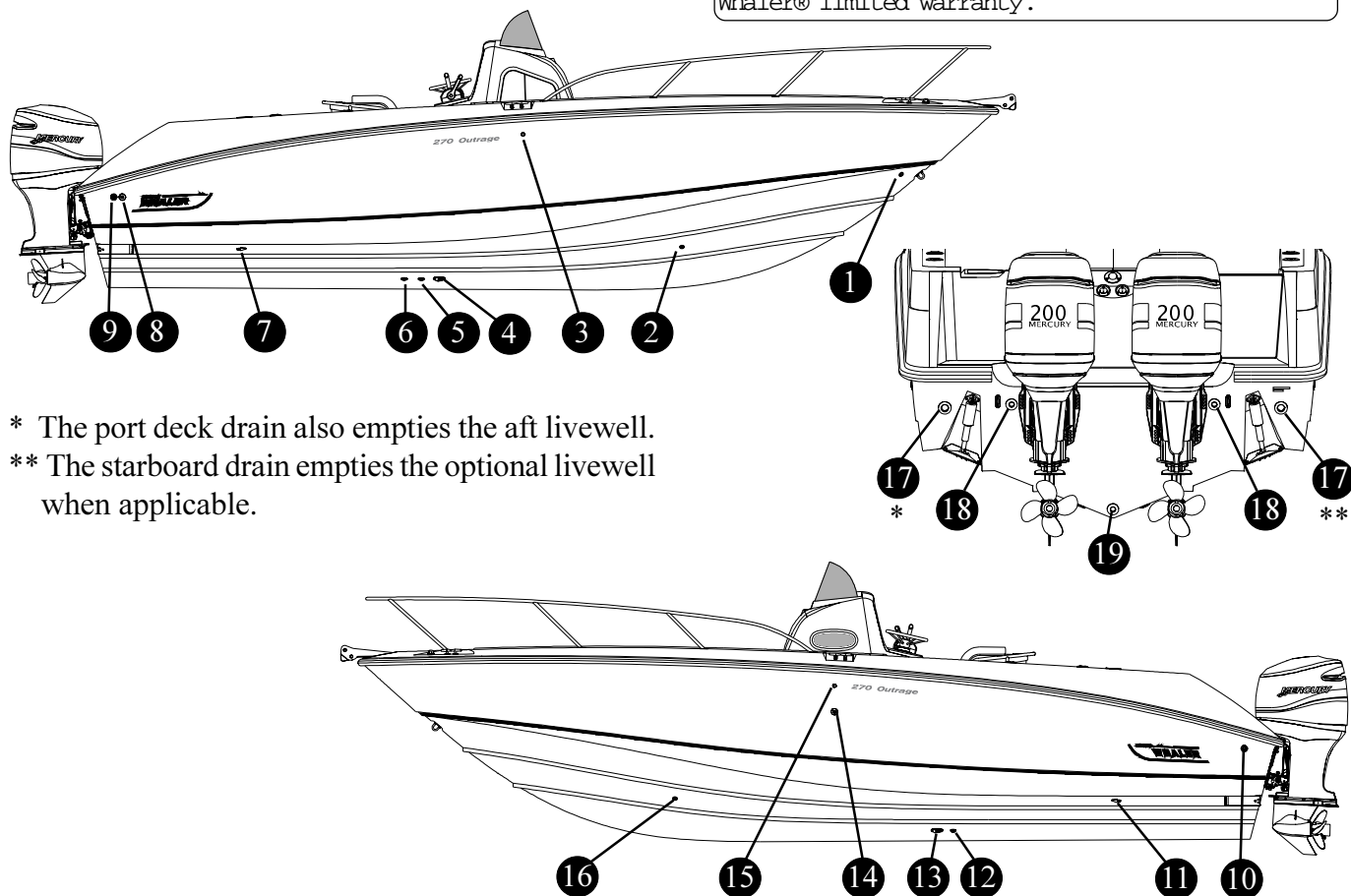
NOTICE

Through hull fittings should be checked for proper seal annually. When the boat is in the water the underwater fittings can be checked for dripping. It is recommended that the underwater fittings be removed, cleaned and resealed every other year.



NOTICE

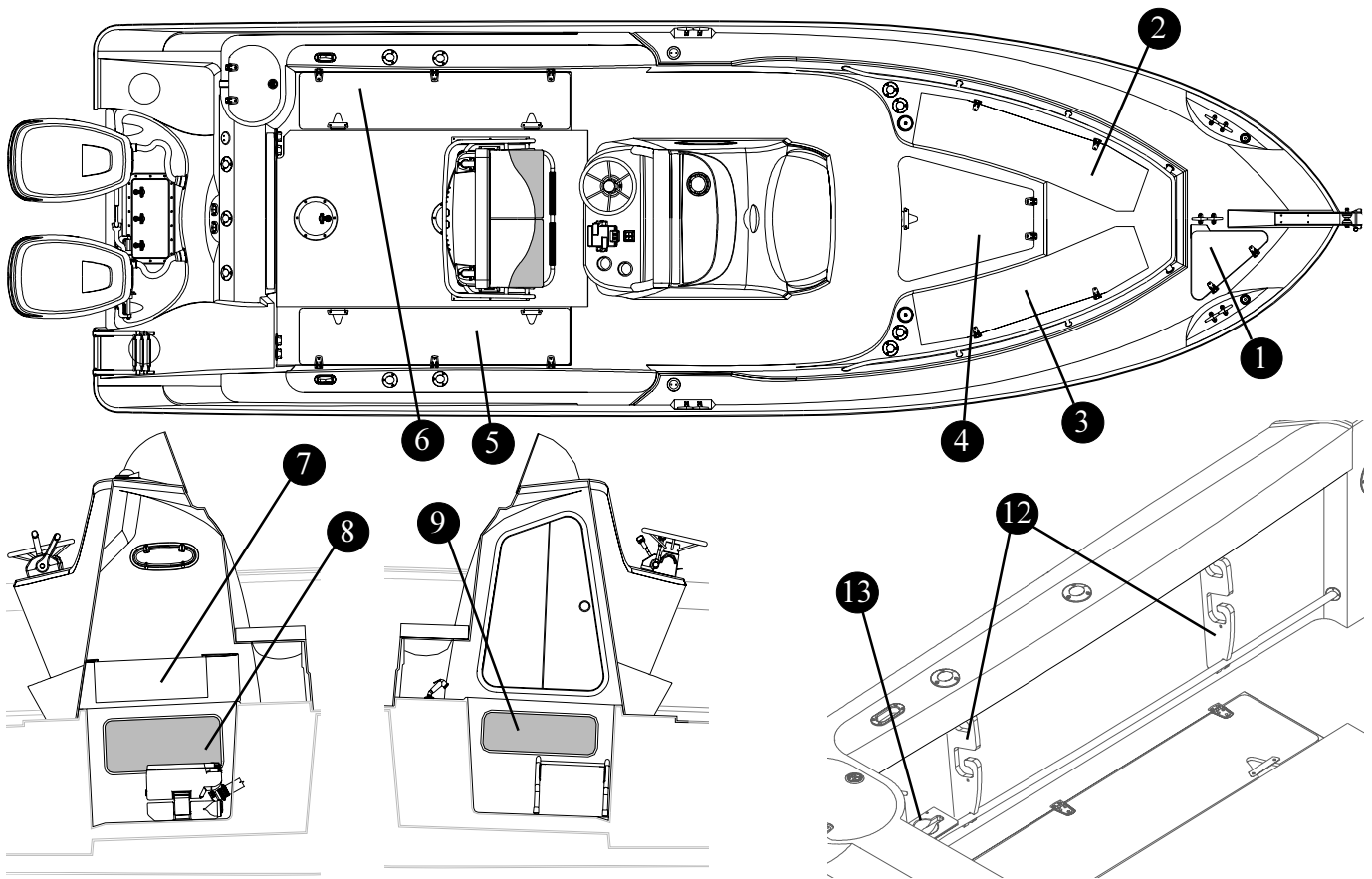
If the through hull fittings need to be replaced, it is recommended that an authorized Boston Whaler® dealer perform this type of repair. Through hull fittings that are improperly installed can cause premature hull failure and may void the Boston Whaler® limited warranty.



- * The port deck drain also empties the aft livewell.
- ** The starboard drain empties the optional livewell when applicable.

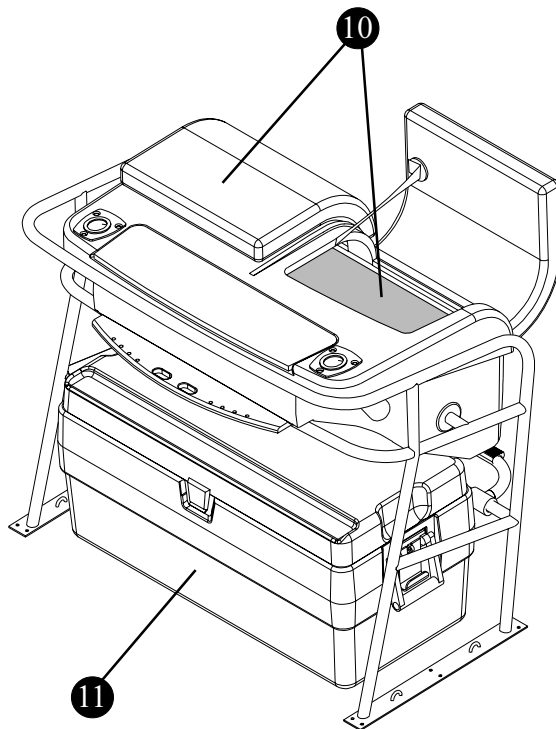
270 Outrage Through-Hull fittings

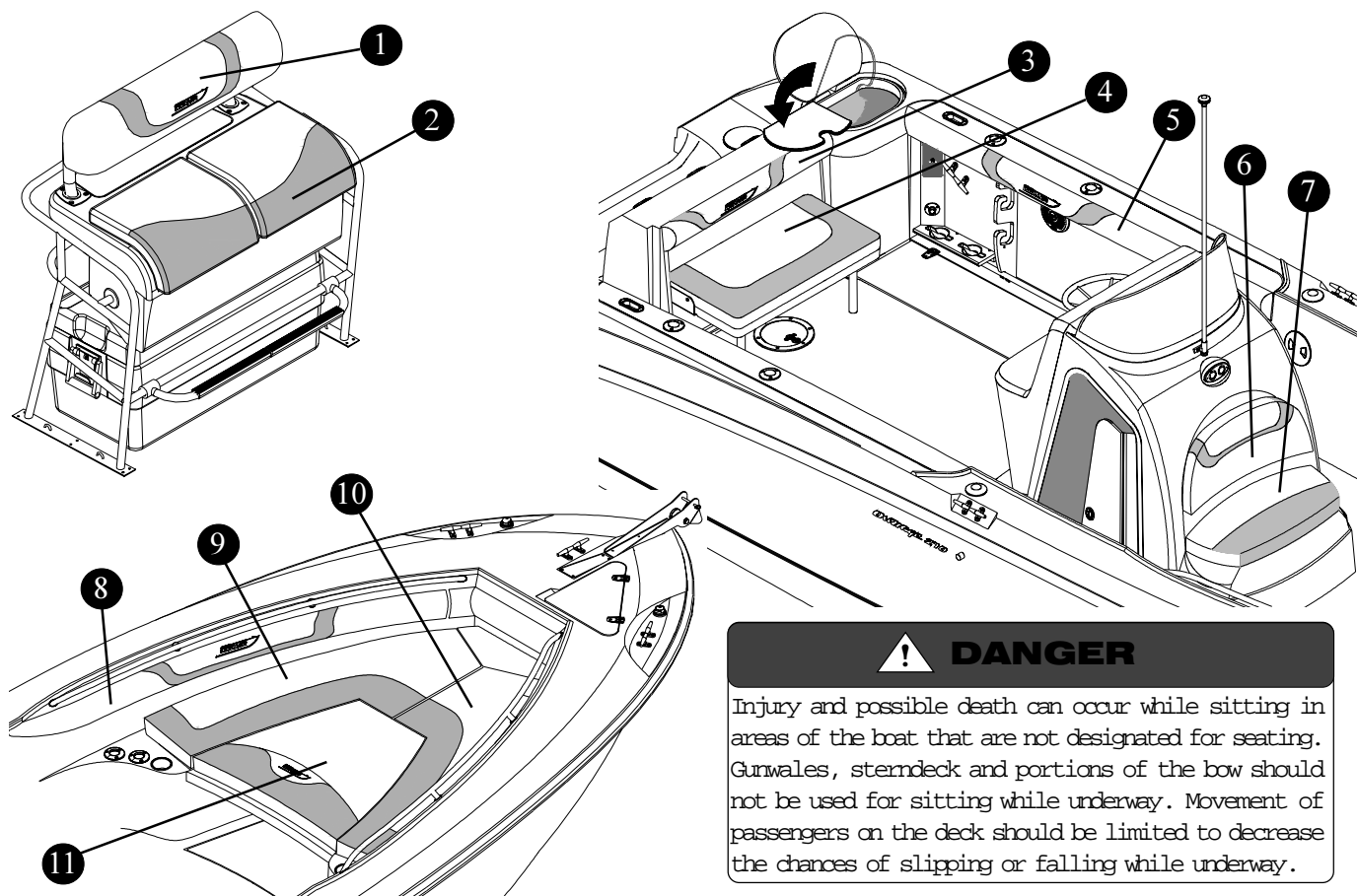
- | | |
|---|--|
| ① Anchor locker drain | ⑩ Port fishbox pumpout fitting |
| ② Forward fishbox drain, Starboard | ⑪ Port fishbox drain |
| ③ Waste vent | ⑫ Console sink drain |
| ④ Marine head intake fitting (optional) | ⑬ Raw water inlet |
| ⑤ Waste pump-out w/ macerator & overboard discharge fitting | ⑭ Forward bilge drain, 800 GPH |
| ⑥ Forward fishbox pumpout fitting | ⑮ Fuel vent |
| ⑦ Starboard fishbox drain | ⑯ Forward fishbox drain, Port |
| ⑧ Aft bilge pump discharge fitting, 1100 GPH | ⑰ Deck drain fitting, Port & Starboard (see notes) |
| ⑨ Starboard fishbox pumpout fitting | ⑱ Motorwell drain, Port & Starboard |
| | ⑲ Garboard drain |



270 Outrage, Storage

- ① Anchor locker storage
- ② Forward port rod storage
- ③ Forward starboard rod storage
- ④ Forward fishbox
- ⑤ Starboard fishbox
- ⑥ Port fishbox
- ⑦ Magazine storage
- ⑧ Portside console storage
- ⑨ Starboard console storage
- ⑩ Leaning post storage, under cushion
- ⑪ 94 Qt. (89L) Igloo cooler storage
- ⑫ Under gunwale rod storage, port & starboard
- ⑬ "Cannonball" storage, (4) port & starboard



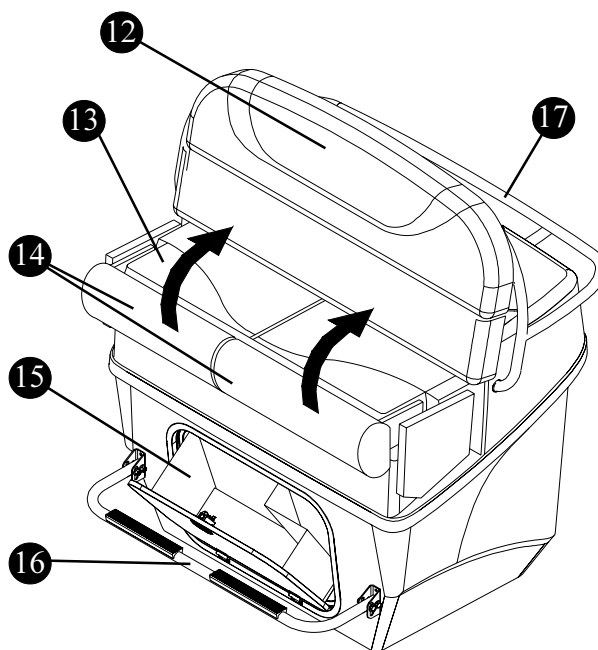


Standard Seating Arrangement

- ① Leaning post backrest cushion, (removable)
- ② Leaning post seat cushion, (storage under)
- ③ Aft coaming bolster
- ④ Aft foldaway seat cushion
- ⑤ Port coaming bolster, (starboard is similar)
- ⑥ Forward console backrest cushion
- ⑦ Forward console seat cushion
- ⑧ Port forward coaming bolster, (starboard is similar)
- ⑨ Port forward seat cushion
- ⑩ Starboard forward seat cushion

Optional seating

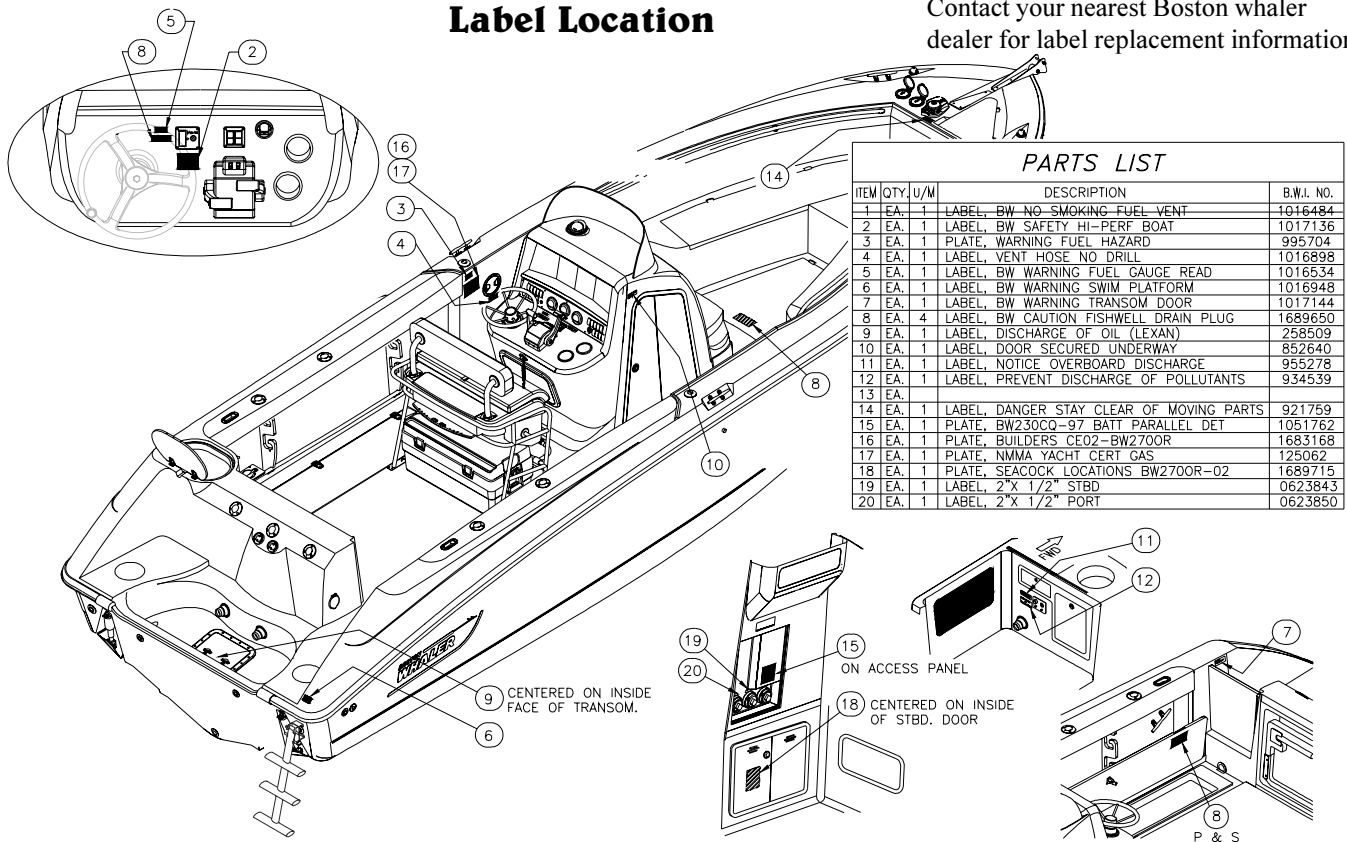
- ⑫ Deluxe leaning post backrest
- ⑬ Deluxe leaning post seat
- ⑭ Deluxe leaning post folding bolster, helm & passenger
- ⑮ Deluxe leaning post pullout storage bin
- ⑯ Deluxe leaning post footrest
- ⑰ Deluxe leaning post grabrail



270 Outrage-Owner's Manual

Label Location

Contact your nearest Boston whaler dealer for label replacement information.



PARTS LIST			
ITEM	QTY.	U/M	DESCRIPTION
1	EA.	1	LABEL, BW NO-SMOKING-FUEL VENT
2	EA.	1	LABEL, BW SAFETY HI-PERF BOAT
3	EA.	1	PLATE, WARNING FUEL HAZARD
4	EA.	1	LABEL, VENT HOSE NO DRILL
5	EA.	1	LABEL, BW WARNING FUEL GAUGE READ
6	EA.	1	LABEL, BW WARNING SWIM PLATFORM
7	EA.	1	LABEL, BW WARNING TRANSOM DOOR
8	EA.	4	LABEL, BW CAUTION FISHWELL DRAIN PLUG
9	EA.	1	LABEL, DISCHARGE OF OIL (LEXAN)
10	EA.	1	LABEL, DOOR SECURED UNDERWAY
11	EA.	1	LABEL, NOTICE OVERBOARD DISCHARGE
12	EA.	1	LABEL, PREVENT DISCHARGE OF POLLUTANTS
13	EA.	1	LABEL, DANGER STAY CLEAR OF MOVING PARTS
14	EA.	1	PLATE, BW230CO-97 BATT PARALLEL DET
15	EA.	1	PLATE, BUILDERS CE02-BW2700R
16	EA.	1	PLATE, NMMA YACHT CERT GAS
17	EA.	1	PLATE, SEACOCK LOCATIONS BW2700R-02
18	EA.	1	LABEL, 2' X 1 1/2" STBD
19	EA.	1	LABEL, 2' X 1 1/2" PORT
20	EA.	1	LABEL, 2' X 1 1/2" PORT

Label Location

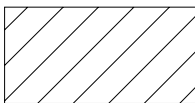
Accommodation deck:



This area of the boat is inside the cockpit and includes helm seating. Movement in this area should be done with extreme caution while the boat is underway. A sudden shift

in boat direction can cause a loss of balance and lead to injury or death.

Working deck:



This area is intended for occupation ONLY while mooring, anchoring, loading/unloading or when the boat is at rest. NEVER operate the engine while loading or unloading

swimmers/divers from the swim platform/ladder.



DANGER

Be aware of your footing while the boat is underway, slipping or falling could result in serious injury or death, especially if the boat is in motion or in rough water. Keep the accommodation deck clean, so if movement is necessary it will be free of obstruction.



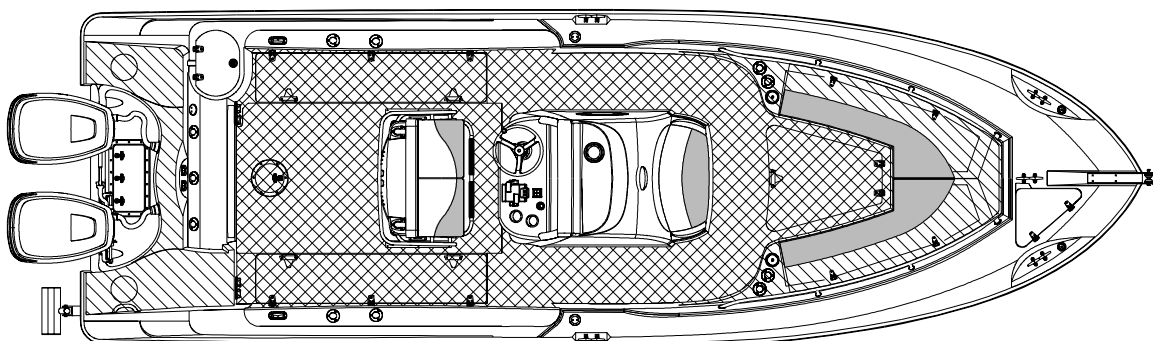
WARNING

Gelcoat surfaces are slippery when wet. Use extreme caution when walking on wet surfaces. Use care when waxing to ensure that walkways are not made dangerously slippery.



WARNING

Never occupy the working decks while the boat is underway. ONLY sit in areas that are designated for sitting. NEVER sit on the gunwales (vertical sidewalls), while the boat is moving.



Fuel System



DANGER

Check for leaks in tubing, connections and hoses. Correct the cause of the leaks and ventilate the area to insure that no fumes remain, prior to energizing any electrical equipment and/or starting the engines.



DANGER

Static electricity can ignite gasoline vapors causing serious injury/death and/or destruction of property.



CAUTION

Use of improper gasolines can damage your engine seriously. Engine damage resulting from use of improper gasoline is considered misuse of engine and will void the warranty. Follow engine manufacturer's recommendations regarding the types of fuel and oil to use.



CAUTION

Leaking fuel is a fire and explosion hazard, inspect the system regularly. Examine fuel tanks and exposed lines for leaks and corrosion.



CAUTION

Oil and fuel spills can be dangerous and can subject offenders to severe penalties



NOTICE

Remove portable tanks from boat and fill from shore. When fueling is complete, secure tanks to deck with straps provided.



NOTICE

Fuel tanks should never be filled to capacity, allow 2% for expansion.



FUEL,
GENERAL

The 270 Outrage is equipped with a gasoline fuel system. Please take time to read and understand all the fuel related information and warnings in the engine owner's packet. The diagrams below show the location of the fuel fill, routing of fuel supply hose and the location of the fuel tank vent.

270 Outrage Fuel System

- ① 5/8" fuel vent
- ② 1-1/2" Fuel fill to deck plate
- ③ 200 Gal. (757L) Aluminum fuel tank
- ④ Ground wire
- ⑤ Fuel sender
- ⑥ Port engine fuel supply
- ⑦ Starboard engine fuel supply

Fuel Tank

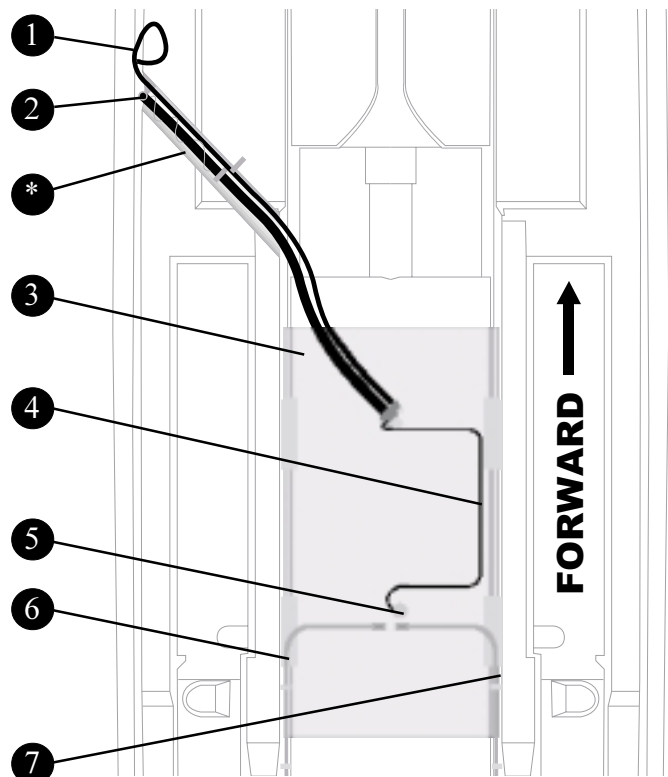
The 270 Outrage comes with a 200 Gal. (757 L) aluminum fuel tank. The tank is located under the aft section of the cockpit. Access to the fuel level sender and engine supply line tank connections are made through a plate on the aft section of the cockpit floor.

Fuel Fill

The 270 Outrage fuel fill is located in the port side amidship of the gunwale, it is marked "GAS", and is opened by use of a special key that is included with the owner's manual packet. Follow the engine manufacturer's recommendation for the types of fuel to use.

Rigging Trough

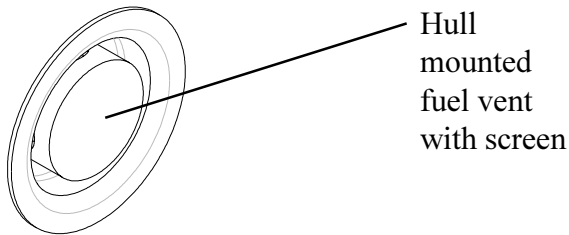
There is a rigging trough located on the port side of the cockpit. The rigging trough runs at a 45° angle back from the access plate on the port gunwale. It is used to route all fuel, vent and water lines to their connections on the finished deck from the fuel tank and bilge area. Use extreme caution when in this area for drilling or cutting.



* THERE IS A RIGGING TROUGH BELOW THE FINISHED DECK , ALL CAUTION MUST BE USED WHEN DRILLING IN THIS AREA. FUEL LINES AND FUEL VENTS COULD BE DAMAGED OTHERWISE.

Fuel Vent

The fuel tank has a fuel tank vent located amidship, 7-9" inches below the rub rail directly below the fuel fill cap. The fuel tank vent serves as a pressure/vacuum release, safety overflow and flame arrestor. Access to the vent fittings is through twist-out plate located inside the cockpit opposite the fuel tank vent. Check the vent assembly regularly as part of a maintenance schedule for continued safe operation of your boats fuel system. The Vent assembly consists of a backshell, starwasher, nut and hose clamp. Remove the hose clamp, nut, starwasher and backshell and push the fuel vent fitting out. The fuel vent has four screens that are held in by a ring. Use a small pick to dislodge the ring to remove the screens and clean as required.



EMPTY TANK:

A fuel tank with levels less than 1/4 full can cause problems by stalling an engine due to fuel starvation or by allowing sediment and dirt to enter the fuel supply lines. Keeping the tank filled will reduce the chance of this occurrence; since the residue will most likely settle to the bottom of the tank. Monitor the fuel level often to prevent this from happening.

HOSES AND FITTINGS:

Hoses and fittings should be inspected at least every 100 hours. Check the hoses for cracks, abrasions and deterioration and the strong smell of fuel prior to starting the engine(s). If the hoses or fittings are damaged or worn, replace them with only marine grade replacement parts. Your authorized Boston Whaler® dealer will have all the parts information you will need.

TANK CLEANING:

Excessive water and sediment may force you to consider having the tank professionally cleaned. If you are frequently changing fuel filter/water separators and notice a loss in power, consult a professional tank cleaning contractor regarding this procedure and proper disposal of residue and water.

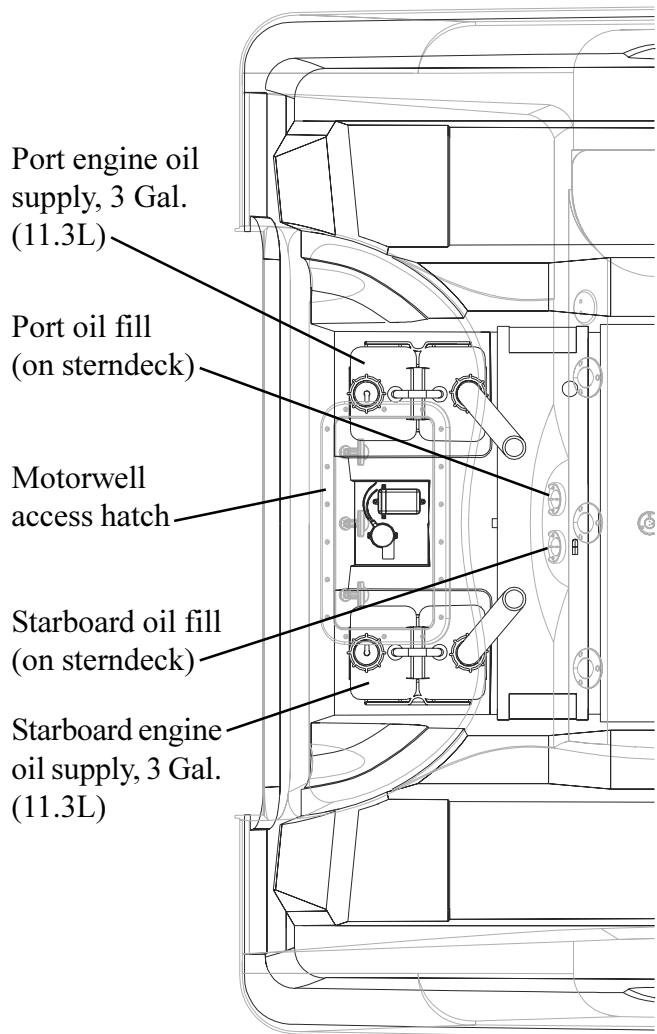
Remote Oil System

The 270 Outrage is equipped with a remote oil system. This system consists of a two 3- Gal.(11.3L) reservoir tanks and hoses which contain and meter lubricating oil to the engine(s).

The tanks have an external fill located on the aft side of the cockpit transom wall.

Access to the tanks is through the motorwell access hatch. When recapping the fill make sure that it is secure to prevent spills and to prevent the intrusion of water into the system. Your remote oil tank is secured by a nylon strap and quick release clip. Little maintenance is required for the remote oil system, aside from checking the hoses for abrasions and cracks and hose clamps for proper tightness. The tank should not be exposed to ultraviolet light, rain or seawater for extended periods of time.

Remote Oil Tank Location
(sterndeck has been shaded)



Static Electricity and the Fuel System

There is a danger that static electricity can ignite gasoline vapors that have not been ventilated outside an enclosed area. Use extreme caution when fueling your boat from a source outside the regular venues, (e.g. marinas, fuel service stations.)

Your boat has safety features that can be circumvented by not adhering to standard fueling practices. Your boat's bonding system protects it from creating and discharging static electricity.

Your boat must be in contact with the water or a land based grounding system. Here are some helpful suggestions to keep you safe from static electricity while refueling your boat.

- NEVER fuel your boat in unsafe conditions such as: suspended on a sling or in a situation that increases the likelihood of static discharge.
- NEVER use homemade containers to fill your fuel tanks.
- Fuel carried on-board outside of a fixed fuel system should be stored in an approved container or in a portable tank such as provided for outboard engines and be stowed safely outside of the engine or living compartment(s).
- Shut down the engine(s), motors and fans prior to taking on fuel. Any ignition sources should be extinguished before filling the fuel tank(s).
- Close all ports, windows, doors and hatches.
- Fueling should never be done at night except in well-lighted areas.
- Always keep the fuel nozzle in contact with the fuel fill plate or the edge of the fuel tank opening throughout the filling process.
- Allow areas where gasoline vapors could collect to be ventilated before starting the engine(s).
- Wipe any spillage completely and dispose of rags or waste on shore.
- Secure the fill cap tightly.
- Fuel tanks should never be filled to capacity. allow 2% for expansion.
- Portable tanks should only be filled while on the ground; never on-board the boat.

Electrical System

DANGER

Batteries contain sulfuric acid which is dangerous and can cause serious injury. AVOID contact with skin, eyes and clothing. If contact occurs, immediately flush the affected area with large quantities of water and call for medical assistance.

CAUTION

- Never use an open flame in the battery storage area.
- Avoid striking sparks near the battery.
- A battery will explode if a flame or spark ignites the free hydrogen given off during charging.
- The battery should always be disconnected before doing any work or maintenance on the electrical system.

CAUTION

Never reset a breaker without first determining and correcting the cause of the trip. Should a circuit repeatedly trip, have a qualified electrician determine and correct the cause.

CAUTION

If equipped with a battery switch, you will need to stop the engine before moving the switch to the "OFF" position.

NOTICE

Always store the battery in the battery box. Use the straps and clamp to keep the box secure while underway.

Battery Information



BATTERY

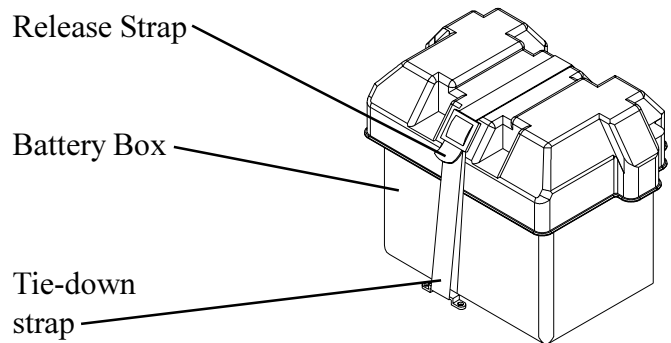
Your 270 Outrage is equipped with an electrical system that provides power for the following:

- Engine ignition
- Engine tilt trim system
- Helm switch panel & helm instrument panel
- Lighting/Navigation system
- Livewell system
- Add-on accessories and electronics

The system consists of the following components:

- Battery holders, (2 standard)
- Third battery Holder & Switch
- Dual battery switches, (2)
- Main & Branch circuit breakers
- Helm Ignition, Switch & Instrument Panel

Batteries should always be enclosed in the covered battery boxes provided with your boat. The box will contain any spilled acid, as well as protect the battery terminals from damage or inadvertent shorting from coming in contact with metal objects. Each battery box should always be secured in place by using the straps and clamps provided, the straps will ensure that while underway the battery will not move around, causing damage to components stored in the same area. The 2 standard battery boxes can be accessed through a door in the aft section of the console interior. The 3rd optional battery holder can be accessed by the door under the sink.



Battery Maintenance

The most life shortening experience for the battery is to be drained to zero charge before recharging. When a battery discharges, the active material on both positive and negative plates converts to lead sulfate, causing the plates to become more alike in an electrical charge. The electricity conducting battery acid becomes weaker and the voltage drops. As the battery remains discharged, the process continues until recharging the battery becomes impossible. If the battery does become run down be sure to recharge it as soon as possible. Over charging the battery can be just as detrimental to its life as running it down too far.

Battery maintenance should include:

- Inspect each battery and charging system before use; for loose connections or wiring.
- Coat the terminals with dielectric grease.
- Keep the batteries dry.
- Remove the batteries from the boat during cold weather or long term storage.

Dual Battery Switches



WARNING

Do not operate boat with batteries in parallel, serious engine electrical damage may result.



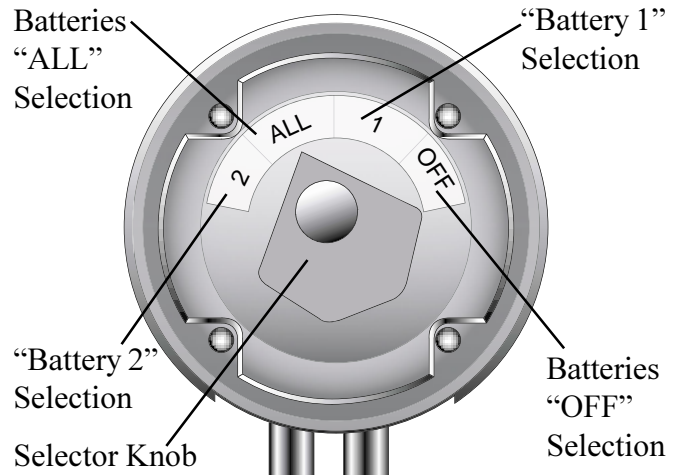
WARNING

Bilge pump still draws power from the batteries, even if the switches are set to "OFF".

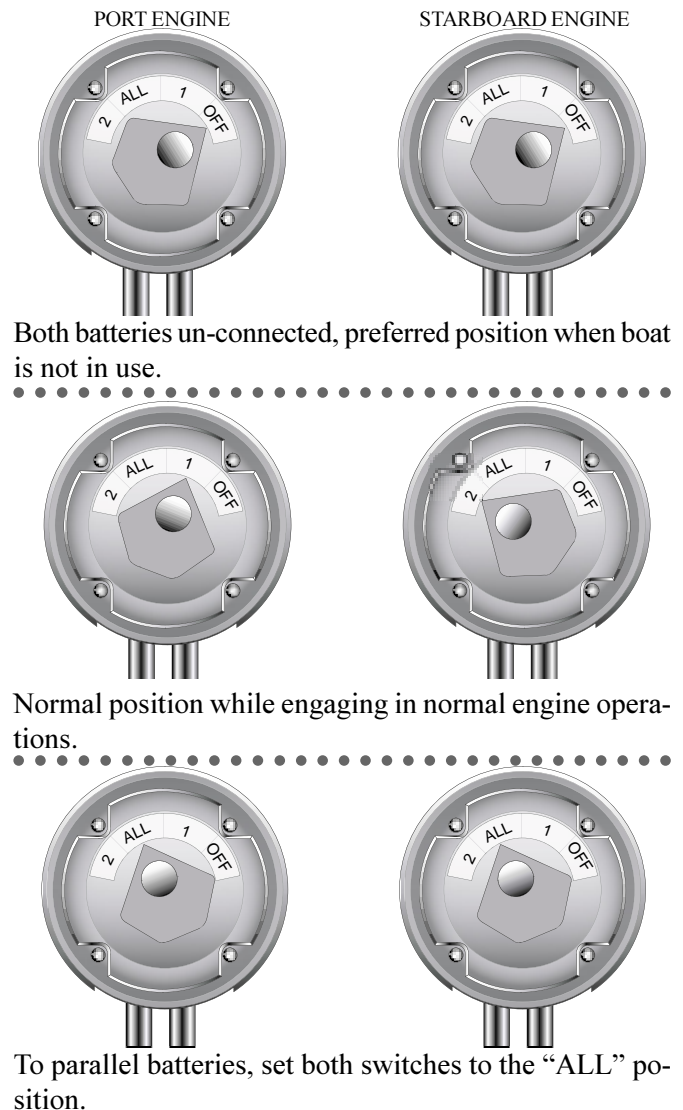
Your 270 Outrage uses a pair of battery selector switches to control delivery of DC power from two batteries. The battery switches are located below the breaker panel on the aft bulkhead inside the console. The dual battery switch has four (4) settings:

- "OFF", you will have no power to the engine(s).
- "ALL", you will have power from both batteries at the same time. This parallels the batteries to assist you in starting the engine(s), once the engine is started the battery switch should be taken off of the "ALL" setting, and set to charge either battery.
- "1", you will have power from the port battery only.
- "2", you will have power from the starboard battery only.

When the engines are shut down or not providing a charge, the system will draw power from the starboard battery. This will allow you to run all the boats functions without affecting the port battery. You can run the starboard battery flat and still start the engines by moving the selector knob on the battery switches to the "ALL" position. The battery switches are located below the breaker panel on the aft bulkhead inside the console. When looking at the panel, the switch on the left is for the port battery and engine, the right switch is for the starboard battery and engine. There is a section to the right of the starboard battery switch that is for the optional house battery switch. When this option is used; all the boats electrical functions minus the engines will be controlled by this switch.



Dual Engine Battery Switch Configuration



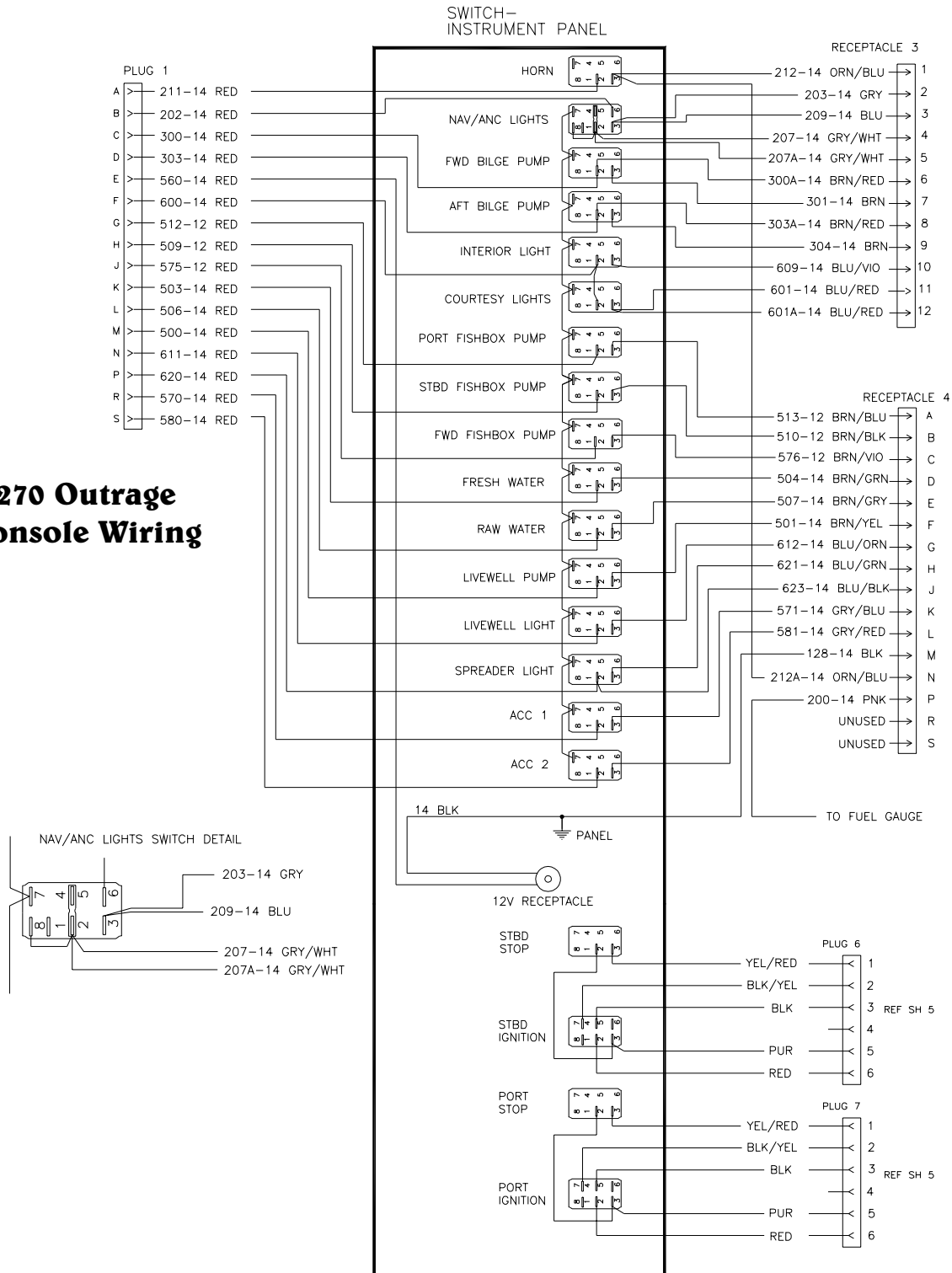
Return to normal operating positions after starting.

270 Outrage-Owner's Manual



This owner's manual contains schematics for your boat. These electrical schematics were generated by technicians in our Engineering Department and are for reference and to be used by service technicians. Boston Whaler® does not recommend that you attempt to work on the electrical system yourself, instead we suggest that you take it to an authorized Boston Whaler® dealer for electrical service. Boston Whaler® reserves the right to change or update the electrical system on any model at any time without notice to the consumer and is not obligated to make any updates to units built prior to the changes.

270 Outrage Console Wiring

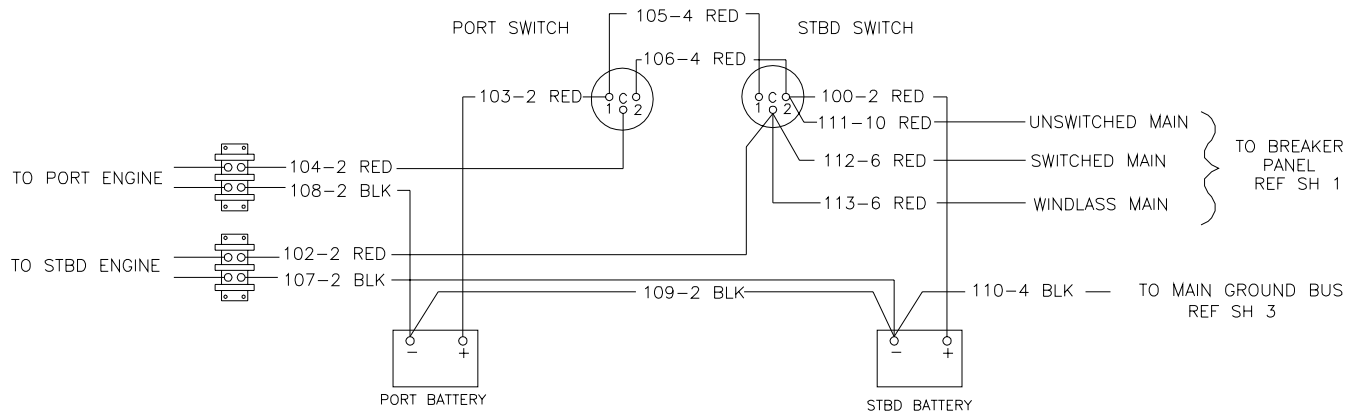


270 Outrage Hull Wiring Diagram

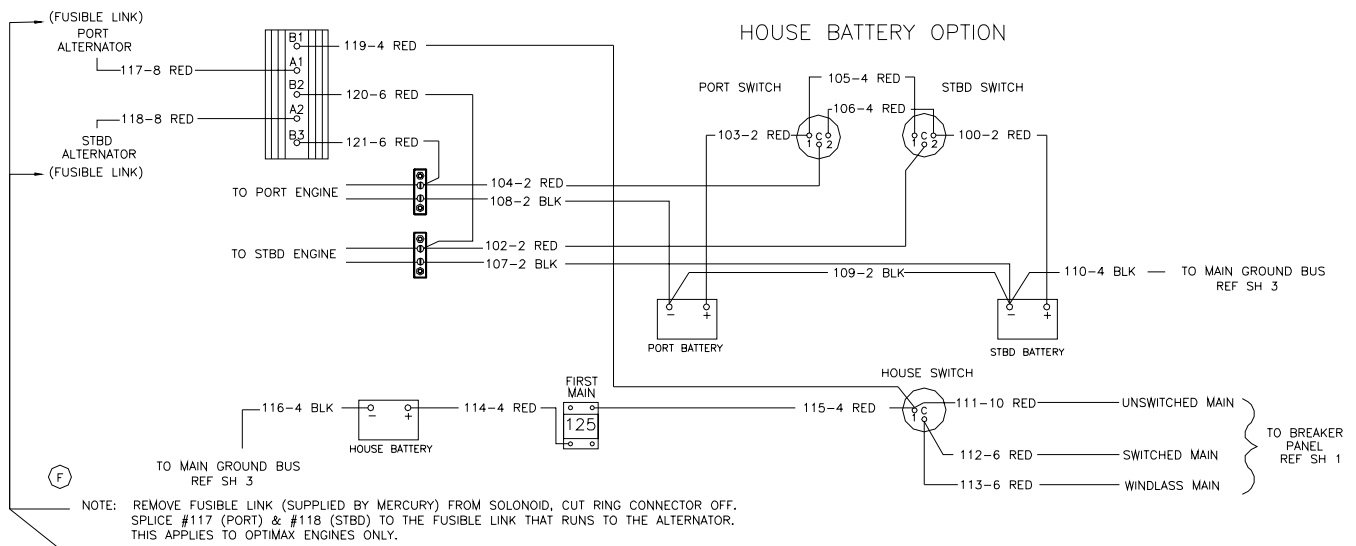


270 Outrage-Owner's Manual

270 Outrage Standard Battery Wiring Diagram



270 Outrage Optional Battery Wiring Diagram



Ignition Shutdown Safety Switch

CAUTION

Wear your lanyard at all times while operating the boat. It is for emergency stopping only. Do not use it to shut off the engine during normal operation. The lanyard should be long enough to prevent inadvertent activation.

The 270 Outrage is equipped with an ignition shut-down safety switch. It is located next to the shift/throttle controls on the console. The ignition shut down safety switch incorporates a shut-off switch, switch clip, lanyard and lanyard clip, which is clipped to the operator. If an emergency arises where the engine(s) must be shut down, a pull on the cord to release the clip from the shut-off will shut down the engine. This switch is designed to shut the engine(s) off when the operator of the boat leaves the control station, either accidentally by falling into the boat, or by being ejected overboard. This would most likely

occur as a result of poor operating practices.

The decision of whether to use an ignition safety switch or not rests with you, the owner/operator.

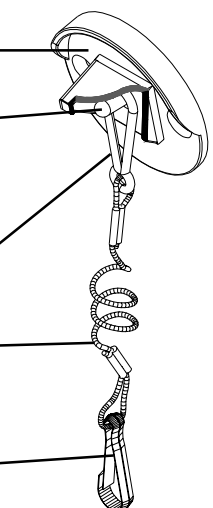
Ignition Shut-down
Switch Plate

Ignition Shut-down
Switch

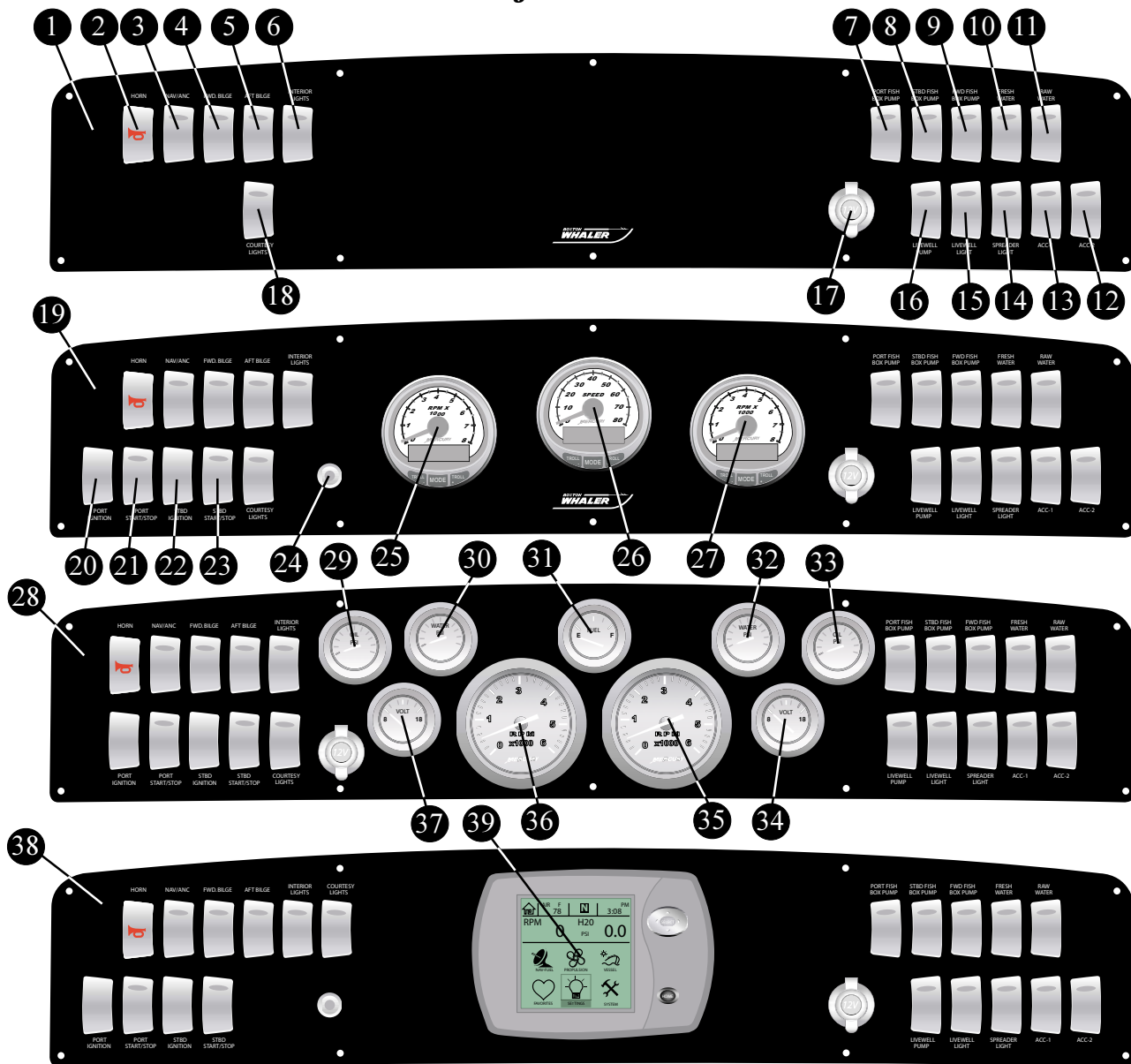
Ignition Shut-down
Switch Clip, (attaches to switch)

Lanyard

Ignition Shut-down
Switch Clip, (attaches to you)

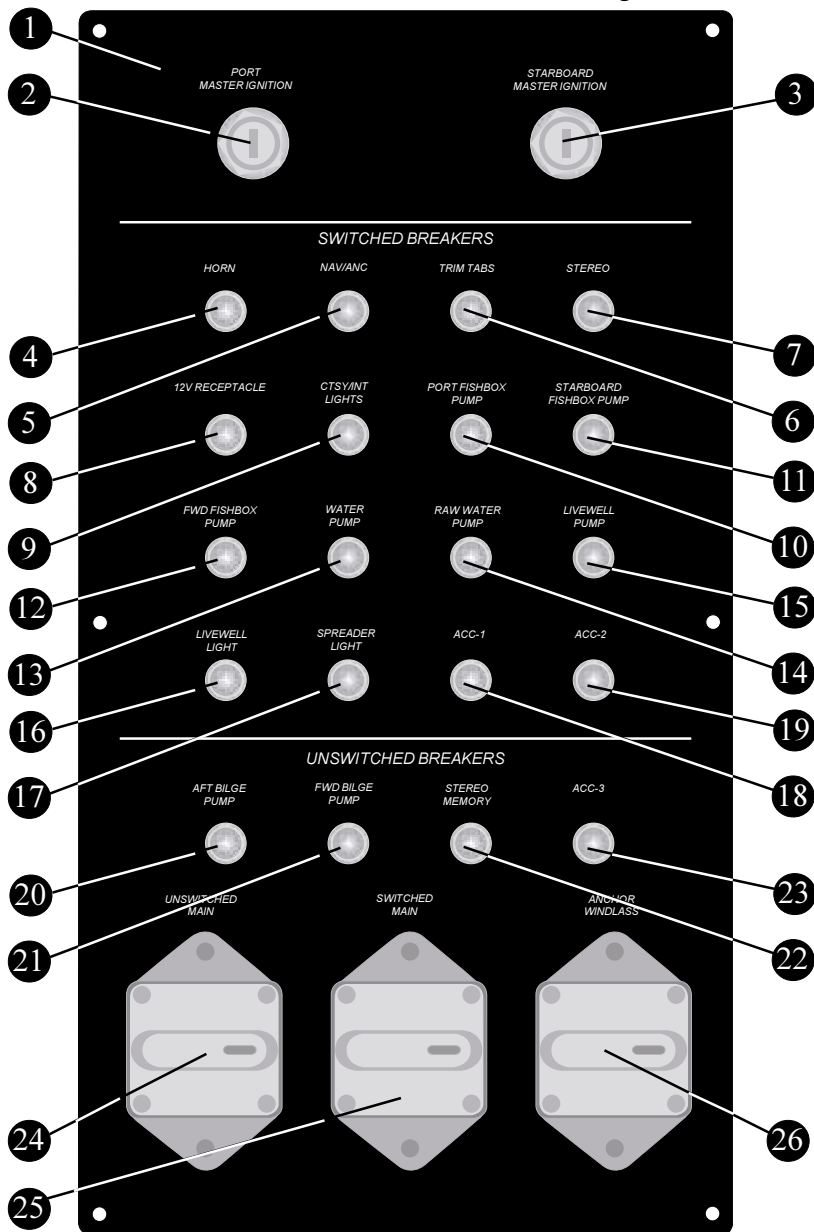


270 Outrage-Owner's Manual

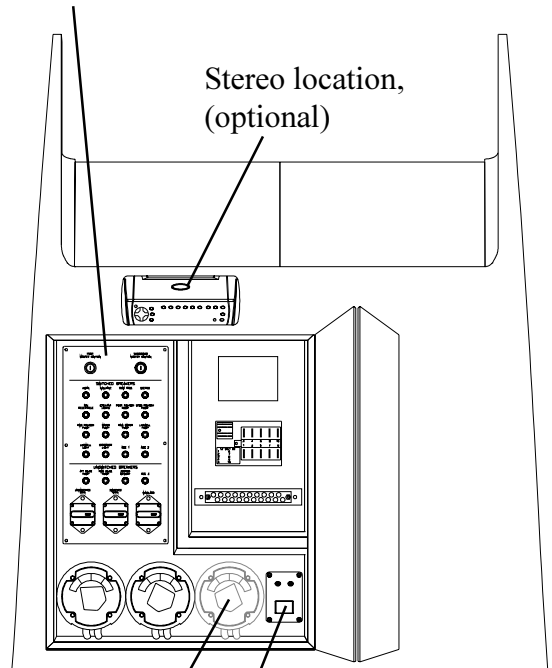


- 1 Instrument panel, Blank
- 2 Horn
- 3 Navigation/Anchor Light Switch
- 4 Forward Bilge Pump Switch
- 5 Aft Bilge Pump Switch
- 6 Interior Lights Switch
- 7 Port Fishbox Pump-out Switch
- 8 Starboard Fishbox Pump-out Switch
- 9 Forward Fishbox Pump-out Switch
- 10 Freshwater Pump Switch
- 11 Raw-water Pump Switch
- 12 Accessory Switch 2
- 13 Accessory Switch 1
- 14 Spreader Lights Switch
- 15 Livewell Light Switch
- 16 Livewell Pump Switch
- 17 12 Volt Accessory Receptacle
- 18 Courtesy Light Switch
- 19 Instrument Panel, Deluxe
- 20 Port Ignition Switch

- 21 Port Start Switch
- 22 Starboard ignition switch
- 23 Starboard start switch
- 24 Air temperature sensor
- 25 Port engine tachometer
- 26 Engine speedometer
- 27 Starboard engine tachometer
- 28 Instrument Panel, Analog
- 29 Oil pressure gauge, Port
- 30 Water pressure gauge, Port
- 31 Fuel level gauge
- 32 Water pressure gauge, Starboard
- 33 Oil pressure gauge, Starboard
- 34 Volt gauge, Port
- 35 Tachometer, Starboard
- 36 Tachometer, Port
- 37 Volt gauge, Starboard
- 38 Instrument Panel, DTS
- 39 SC 5000 Monitor



Breaker panel location,
(aft wall of console cabin)



Shore power indicator
panel, (optional)

Battery switch, (optional)

270 Outrage Breaker Panel

- | | |
|---|---|
| 1 Breaker Panel | 15 4 amp breaker for Livewell Pump switch |
| 2 Port Master Ignition | 16 5 Amp breaker for livewell Light switch |
| 3 Starboard Master Ignition | 17 10 Amp breaker for Spreader Light switch |
| 4 5 Amp breaker for Horn Switch | 18 10 Amp breaker for Accessory 1 switch |
| 5 5 Amp breaker for Nav/Anc switch | 19 10 Amp breaker for Accessory 2 switch |
| 6 20 Amp breaker for Trim Tabs Switch | 20 5 Amp breaker for Aft Bilge Pump switch |
| 7 5 Amp breaker for Stereo | 21 5 Amp breaker for Fwd Bilge Pump switch |
| 8 10 Amp breaker for 12V Receptacle | 22 15 Amp breaker for Stereo Memory |
| 9 10 Amp breaker for Ctsy/Int Lights switch | 23 10 Amp breaker for Accessory 3 switch |
| 10 20 Amp breaker for Port Fishbox Pump switch | 24 50 Amp breaker for Unswitched Main |
| 11 20 Amp breaker for Starboard Fishbox Pump switch | 25 80 Amp breaker for Switched Main |
| 12 20 Amp breaker for Fwd Fishbox Pump switch | 26 80 Amp breaker for Anchor Windlass |
| 13 10 Amp breaker for Freshwater Pump switch | |
| 14 15 Amp breaker for Raw water Pump switch | |

SHIP TO SHORE POWER (OPTIONAL):

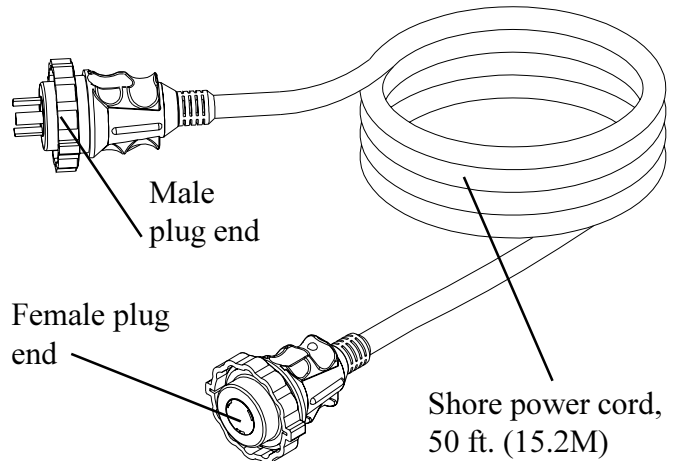
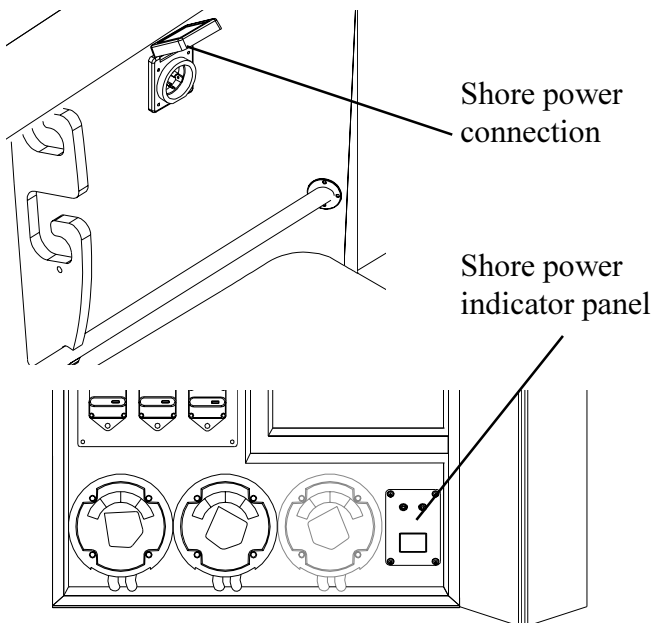
The optional shore power system is rated to 120V/30 Amps. Ship to shore power gives you energy to run all your boats electrical systems and charges your batteries. Connection to shore power is made by means of a 50 ft. weather-tight electrical plug that secures to a screw-on electrical outlet. The shore power outlet is located below the portside gunwale board, forward of the under gunwale rodholders. Once the power cords are connected they are held in place by an outer ring that secures both connectors in place and provides a watertight connection. There is an electrical panel located next to the battery switches on the aft console bulkhead that shows the status of the shore power system.

The indicator panel shows:

- Power status
- Reverse polarity

OPERATION:

Make certain the boat is properly moored before making shore power connection. Connect the female end of the plug to the boat first, than the dockside male connection, check the panel for reverse polarity before switching the shore power main/battery charger switch to the "ON" position. The battery charger is energized and will charge the batteries automatically when the shore power main/battery charger switch is activated.



BATTERY CHARGER:

With the battery charger you will have the ability to charge your batteries (without engines running) while connected to shore power **ONLY**. The system is automatic and little or no maintenance is required.

The battery charger is located in the console cabin and can be reached through the starboard storage access. Read all applicable information regarding the battery charger systems operation and maintenance.

12 Volt Accessory Receptacle

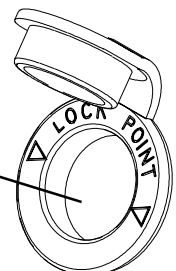


NOTICE

DO NOT insert a cigarette lighter into this receptacle. Damage to the unit & system could occur.

Your 270 Outrage is equipped with a 12 volt accessory receptacle located on the instrument panel. It is a DC (cigarette lighter) style receptacle to be used with any 12 volt accessories using this type of plug. The receptacle is made of corrosion resistant marine grade materials and has a moisture proof cap. There is a 10 amp breaker button located just above the receptacle. **Be sure to use accessories that do not exceed the rated capacity of the circuit, (10 amps) or the breaker will trip.**

Typical 12 Volt receptacle



Navigation Lighting



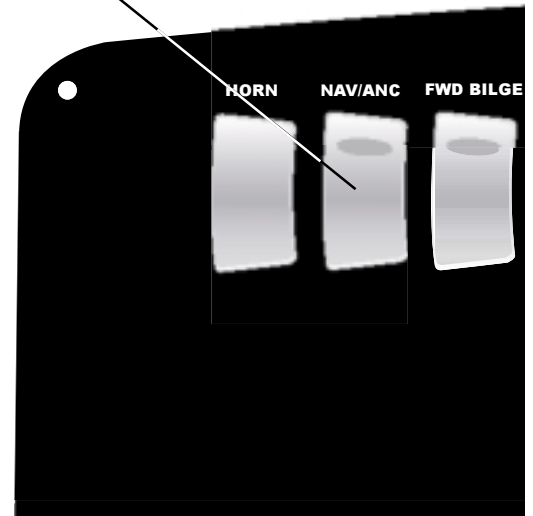
NOTICE

While underway the aft pole light may be obscured by the angle of the hull or by having the canvas top open.

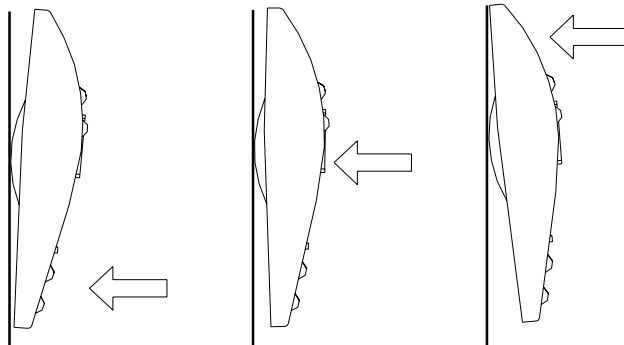
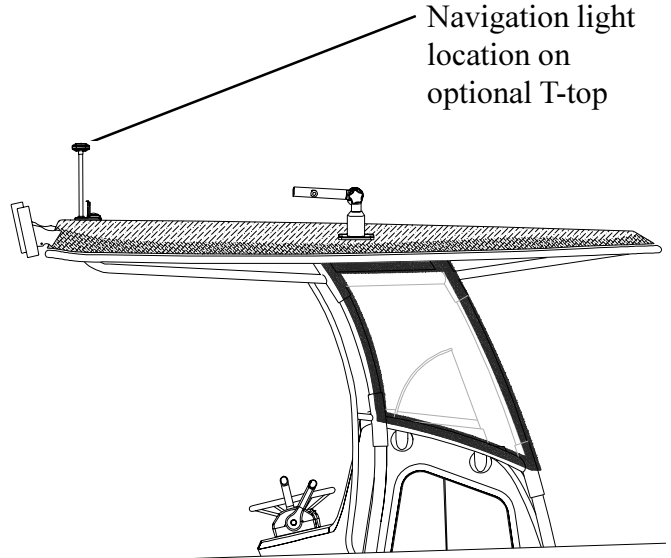
Your 270 Outrage comes equipped with navigation lighting for your safety. Regulations state that all boats no matter the size must display navigation lights.

OPERATION: Control of the navigation lighting is a switch on the instrument panel that is marked "NAV/ANC". The switch has 3 positions to operate the Navigation/Anchor lighting. The lights let other vessels know the approximate size of your boat and the direction your boat is traveling, depending on which lights they can see, they also show other boaters your location while at anchor. The lights must be displayed at night or in low visibility conditions. It is the responsibility of the owner/operator to ensure that the navigation lights are in good working order and that the proper lighting is shown.

Navigation light/
Anchor light switch



Navigation light
location on
optional T-top

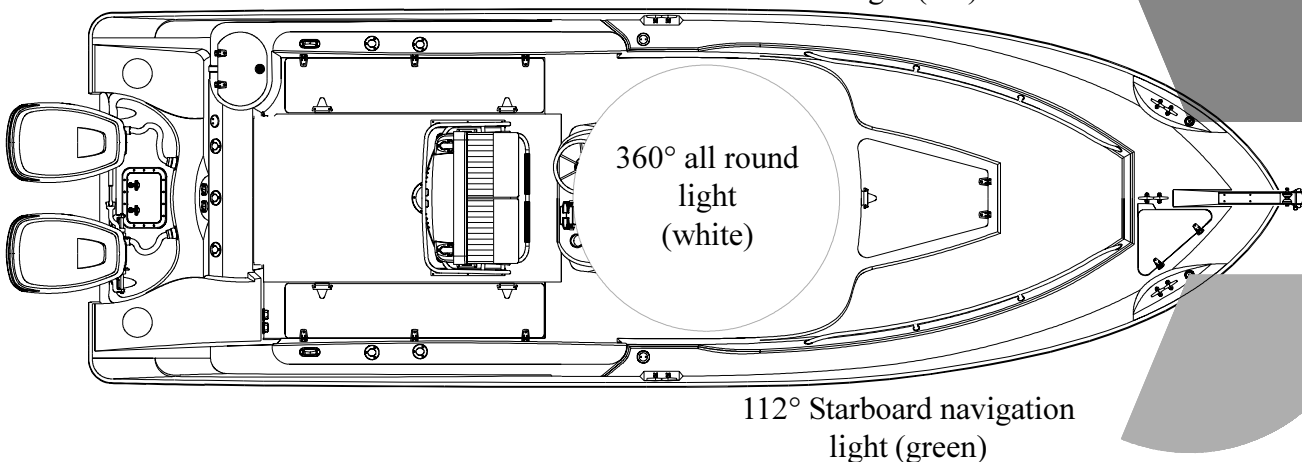


"Off"

"Navigation
Lights"

"Anchor
Lights"

112° Port navigation
light (red)



112° Starboard navigation
light (green)

Water System



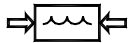
NOTICE

Be sure to fill the water tank from a source known to provide safe, pure drinking water.



NOTICE

If you do not use the freshwater system for long periods of time, or only use it seasonally. It is recommended that you follow the disinfecting practice before using it.



WATER
SYSTEM

Your 270 Outrage is fitted with a 20 Gal. (76L) freshwater tank. The freshwater system includes: Pump, plumbing, holding tank and connections for water service to the transom shower and faucet located in the console cabin.

FRESHWATER PUMP:

The freshwater pump will need to be activated to provide pressure to the system. The freshwater pump is operated by pressing the switch marked "FRESHWATER PUMP" on the instrument panel. This draws water from the holding tank and provides pressure to the aft shower and the console cabin faucet. You can reach the freshwater pump through a removable access hatch located on the aft wall of the console cabin.

FRESHWATER SHOWER:

The freshwater shower is located on the starboard end of the cockpit transom wall and has an enclosure that the shower head and hose fit in. The shower hose extends about 6 ft. (1.82m). Once the system has been pressurized there is a button on the back of the shower head that needs to be pressed for freshwater shower operation.

COCKPIT SINK:

The cockpit sink faucet operates the same as the aft shower. The faucet can be pulled from its base and extended about 6 ft. (1.82m).

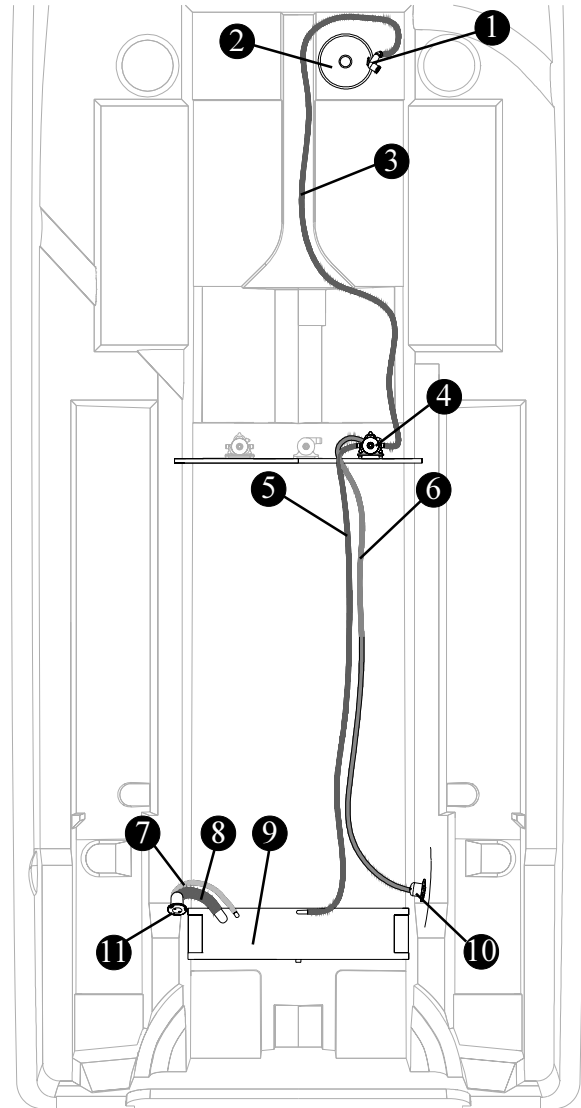
MAINTENANCE:

Very little maintenance is required for the freshwater system, other than annual disinfecting and winterizing. Periodically check the entire system to assure that the hose connections, tube fittings, electrical connections and mounting bolts are properly secured, and free of chafing.

WINTERIZING THE SYSTEM:

If the water system will not be used for an extended amount of time it is recommended that it be drained. Draining the freshwater system will require you energize the freshwater pump switch on the instrument panel,

press the button on the freshwater shower head and empty the freshwater tank next disconnect the hoses to and from the water pump to allow as much water as possible to drain out. De-energize the fresh water pump switch.



270 Outrage Freshwater System Diagram

- ① Console sink faucet
- ② Console sink
- ③ Freshwater supply line from pump
- ④ Freshwater pump, 2.8 GPM
- ⑤ Freshwater supply line from tank
- ⑥ Freshwater supply line to aft shower
- ⑦ Freshwater vent
- ⑧ Freshwater fill hose
- ⑨ 20 Gal.(76L), polyethelene tank
- ⑩ Aft freshwater shower
- ⑪ Transom mounted deck fill plate

DISINFECTING THE SYSTEM:

Before you fill the freshwater system it is vital that it be properly disinfected. The following procedure is recommended to disinfect the freshwater system:

- Flush the entire system thoroughly by allowing potable water to flow through it.
- Drain the system completely.
- Fill the entire system with an approved disinfecting solution (check with your dealer for recommendations) and follow the method prescribed by the manufacturer.
- After disinfecting, drain the entire system.
- Flush the entire system thoroughly several more times with potable water.
- Now the system is ready for use, fill with potable water.

Ask your dealer if this has been done and what procedures are needed to accomplish this. This should be done annually or before using the system if it has been laid up for an extended amount of time.

Raw Water



NOTICE

The seacock **MUST** be in the OPEN position. Running the pump dry may cause damage to the unit.

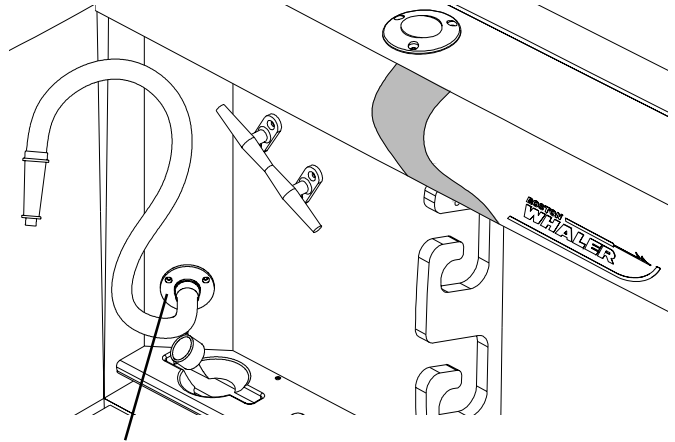
The raw water connection is located on the aft port gunwale. The connection is supplied by a 3.5 GPM pump. The fitting allows for connection of a common garden hose. There is a cap that is tethered to the fitting and should be on the connection when it is not in use.

OPERATION:

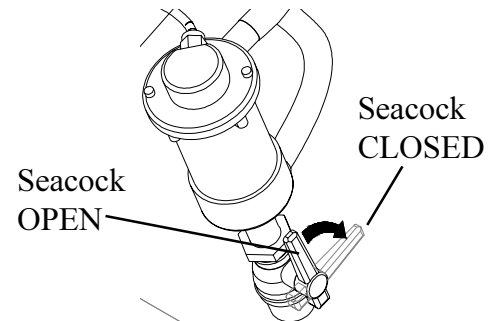
The raw water pump has a seacock that needs to be set in the OPEN position. The seacock can be accessed through the lower aft wall inside the console. The RAW WATER switch on the instrument panel controls pump operation.

MAINTENANCE:

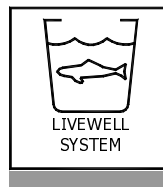
Maintenance of the raw water system will require you to check the fittings and hoses for system integrity to prevent leaks. The system should be run at least every other month to keep the pumps impellers in good condition.



Raw water fitting
(hose shown for reference).



Livewell



The 270 Outrage is equipped with a livewell bucket that is located under the hatch on the aft port side of the sterndeck. The raw water pump, seacocks and plumbing that service the system can be accessed through the access hatch located on the lower aft wall inside the console. Fittings connected to the livewell bucket can be reached through an access panel located in the aft foldaway seat recess.

OPERATION:

The livewell can be filled by using the switch marked "LIVEWELL" on the instrument panel. Before filling the livewell, you must make certain the hull seacock and the livewell flow adjust valve are in the open position. The livewell flow adjust valve is located on the aft port section of the gunwale above the raw water deck fitting. The livewell adjust valve has directions on the panel to show how to increase flow and reduce flow to the livewell.

The livewell also has a pair of drain plugs that are used to adjust the amount of water that stays in the livewell. There is a plug that will drain the entire livewell located in the base of the livewell, the other plug can be used between the two overflow fittings on the starboard side of the livewell.

LIVEWELL, (Optional)

The 270 Outrage can be fitted with an optional livewell that has a capacity of **34 Gal.(129L)**. The livewell is integrated into the helm and passenger console seating and is located aft of the console seating area. The 12V/800 GPH pump and seacock can be accessed through the door located on the aft console wall. There is also a valve inside the livewell base that can be reached through the bin door on the forward part of the livewell base. Both seacocks & valves must be opened before filling the livewell. The livewell has been fitted with two tackle boxes located on the lower aft section of the base, the tackle drawers can be pulled completely out of their station

for easier access. There is a Knife/Hook holder located on the aft section of the livewell just below the livewell lid.

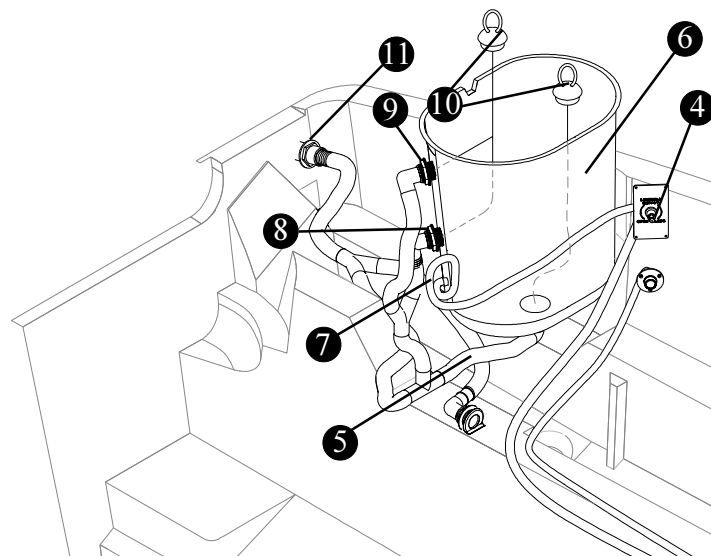
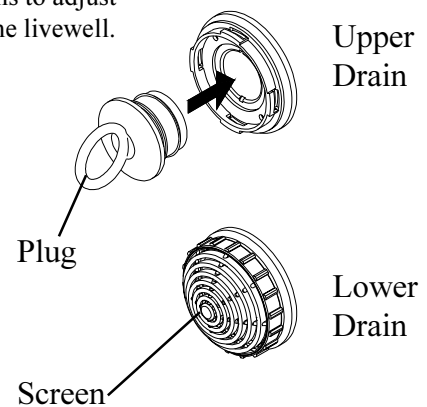
OPERATION:

The optional livewell can be powered and operated through the ACCESSORY 2 switch, located on the instrument panel. The switch is rated to 20 amps. The breaker switch for ACCESSORY 1 is located on the breaker panel on the aft wall of the console cabin.

MAINTENANCE:

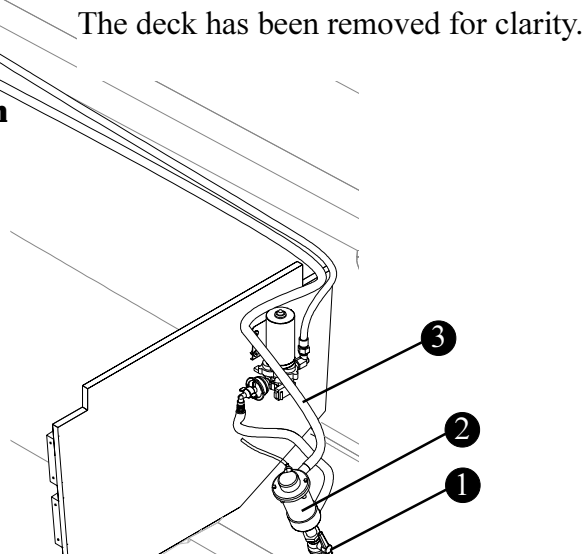
Maintenance of the livewell system will require periodic inspection of the raw water intake strainer and all hose connections. Clean away debris and/or tighten hose connections as required.

Plug and screen can be moved between the two drains to adjust the level of water in the livewell.



270 Outrage Standard Livewell Diagram

- ① Seacock, (shown OPEN)
- ② 12V/800 GPH Raw water pump
- ③ Raw water supply to Flow Adjusting Valve
- ④ Flow Adjusting Valve
- ⑤ Livewell Drain Hose
- ⑥ 23 Gal. (87L) livewell
- ⑦ Livewell fill fitting from flow adjust valve
- ⑧ Livewell tank overflow, mid tank
- ⑨ Livewell tank overflow, upper tank
- ⑩ Livewell tank plugs, (2)
- ⑪ Livewell/deck drain scupper

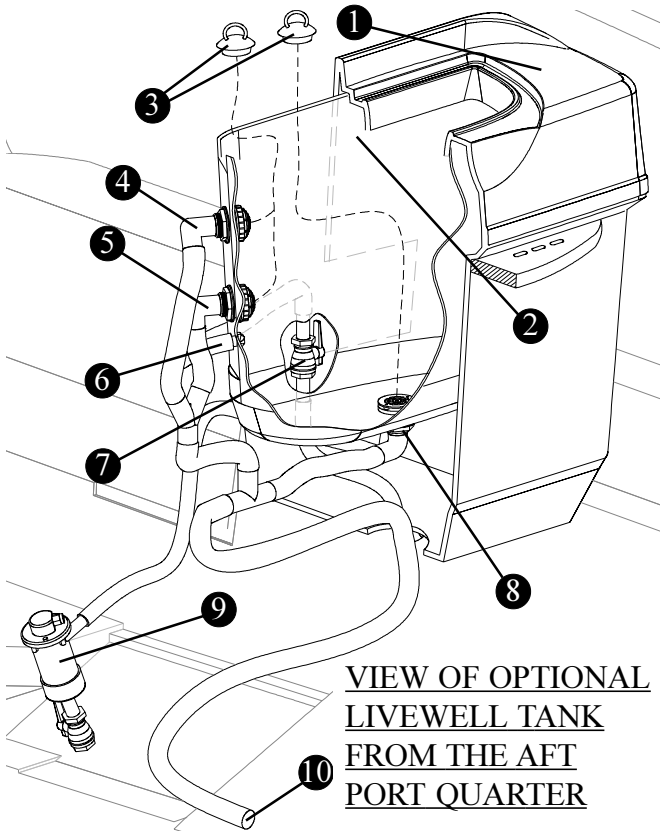


270 Outrage-Owner's Manual

Bilge Pumps

270 Outrage Optional Livewell Diagram

- ① Deluxe leaning post livewell/Prep station
- ② 34 Gal.(129L) livewell bucket
- ③ Livewell tank plugs, (2)
- ④ Livewell tank overflow, upper level
- ⑤ Livewell tank overflow, low level
- ⑥ Livewell fill fitting
- ⑦ Livewell valve
- ⑧ Livewell drain
- ⑨ 12V/800 GPH Raw water pump & seacock
- ⑩ Livewell drain hose to port drain line



NOTICE

The bilge pump is wired directly to the battery. Be sure that the bilge pump float switch is clear of debris to prevent continuous operation and subsequent discharge of the battery.



The 270 Outrage bilge pump system consists of: (1)-1100 GPH pump and (1)-800 GPH bilge pump that are each operated by a float switch that will activate automatically when water in the

bilge reaches a certain level. The 800 GPH pump is located forward of the fuel tank and can be accessed through the console interior. The 1100 GPH pump is located aft of the freshwater tank and can be accessed through the motorwell hatch.

OPERATION:

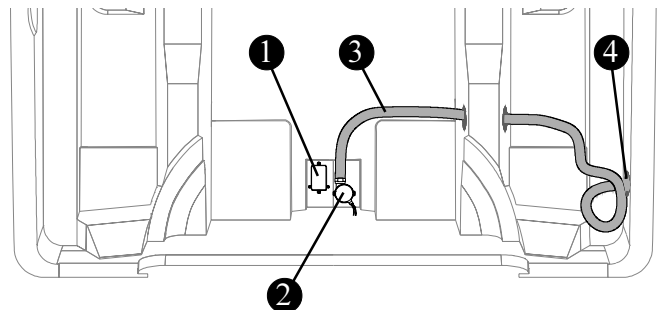
There is a switch marked "AFT BILGE" and "FWD BILGE" on the switch panel. Depressing the switch will energize the pump regardless of the position of the float switch. The pump discharges water overboard via a thru-hull fitting.

MAINTENANCE:

The bilge pump is a completely sealed unit and maintenance is very simple, but it will require you to check around the float switch for debris and gummy bilge oil that could impede the bilge pump from working properly. Check the bilge pump and hoses for wear; clean and repair if necessary.

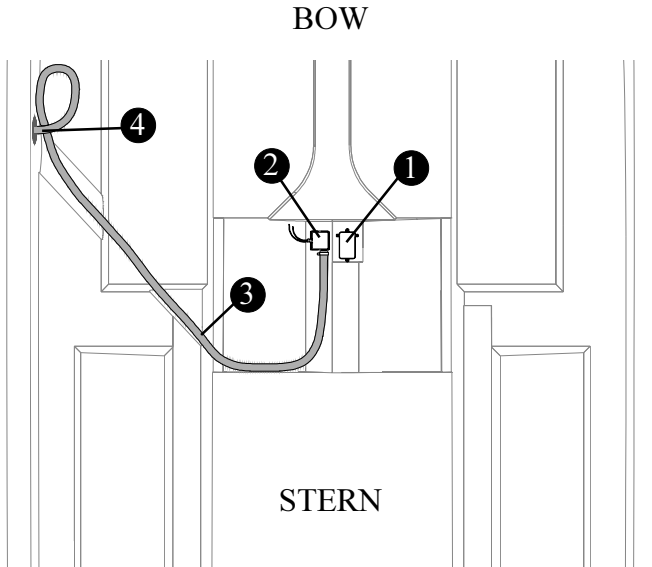
270 Outrage Aft Bilge Pump Diagram

- ① Float switch
- ② 1100 GPH bilge pump, Aft
- ③ 1-1/8" drain hose
- ④ Starboard drain location



270 Outrage Forward Bilge Pump Diagram Head System

The 270 Outrage has an 800 GPH bilge pump located forward of the fuel tank and is accessed through the aft bulkhead of the console. The bilge pump will activate automatically when water in the bilge reaches a certain level.



(deck has been removed for clarity)

- ① Float switch
- ② 800 GPH bilge pump, Forward
- ③ 3/4" general purpose drain hose
- ④ Port amidship drain location

CAUTION

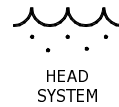
Both intake and discharge seacocks should always be in the closed position when the toilet is not in use. Failure to do so could result in flooding, property damage and loss of life.

NOTICE

This boat is equipped with an optional direct discharge valve. Discharging of sewage directly overboard is for use where approved only.

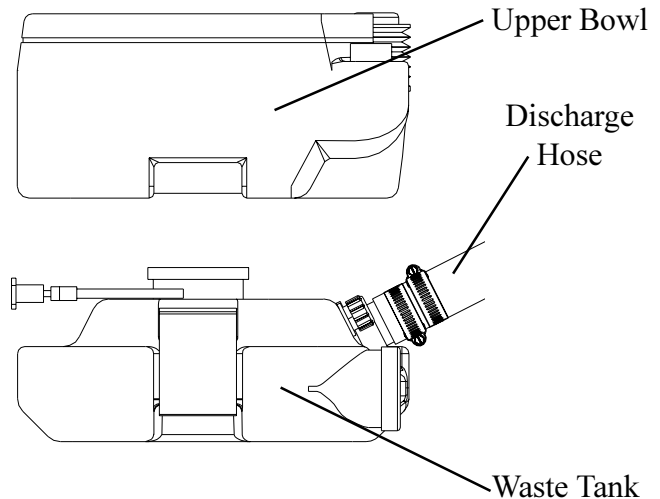
NOTICE

There are severe state and federal penalties for discharging raw sewage and solid waste in waters where it is not permitted. Check with local authorities on where this is permissible, if possible employ the use of a shore side discharge.



Your 270 Outrage has a head compartment located on the port side of the console. It is fitted with a Sani-Potti waste containment system that includes: The Sani-Potti unit, vent and associated hoses and clamps. The Sani-potti system has a lower tank and an upper tank. The upper part of the tank holds freshwater used for flushing the system. The waste from the unit can be held in the lower part of the tank, it has a capacity of 5.2 gallons. Complete operating instructions can be found in the sani-potti operations manual.

Sani-Potti Unit



SHORE SIDE DISCHARGE:

The shoreside discharge deck plate for the 270 Outrage is located on the starboard side of the gunwale and is marked "WASTE". Access to the port is gained by use of a special key that is included in the owners manual packet. The dockside facility will have a connection to fit your boat. It is important that you close your macerator discharge seacock on the 270 Outrage prior to using the shoreside discharge function. **Shore side discharge is a preferred method of waste disposal.**

MACERATOR/OVER BOARD DISCHARGE, (optional):

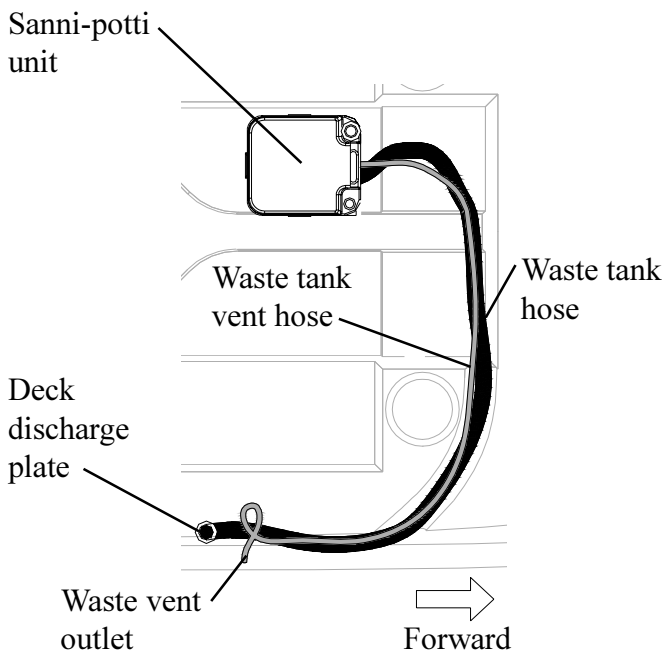
The 270 Outrage waste system can also incorporate the use of a macerator. The macerator/discharge pump draws solid and liquid waste from the holding tank of the unit and processes it prior to discharging it overboard through a seacock.

The pump is designed to handle waste, toilet tissue and facial tissue and will not pump solid objects. The dockside facility will have a connection to fit your boat. It is important that you close your macerator discharge seacock on the 270 Outrage prior to using the shoreside discharge function.

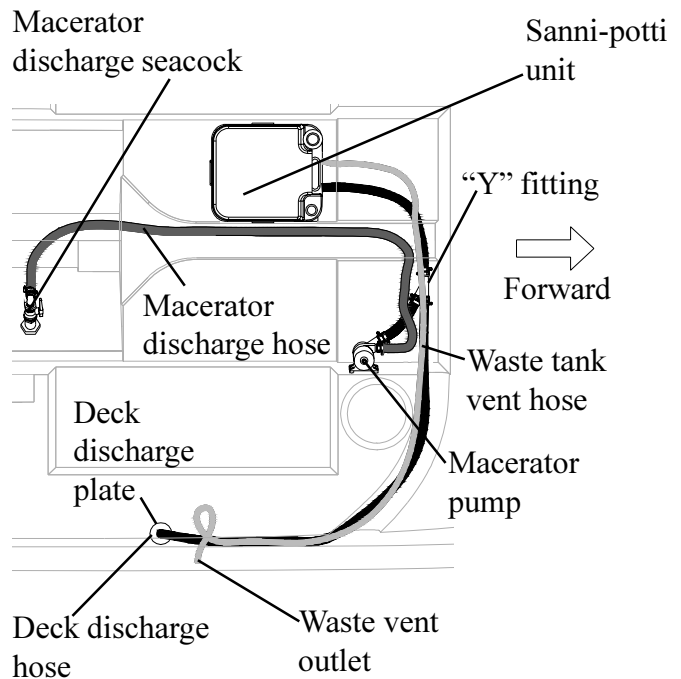
There are bodies of water where discharge of raw sewage is prohibited.

Contact your dealer or Coast Guard station for information on overboard discharge and its penalties.

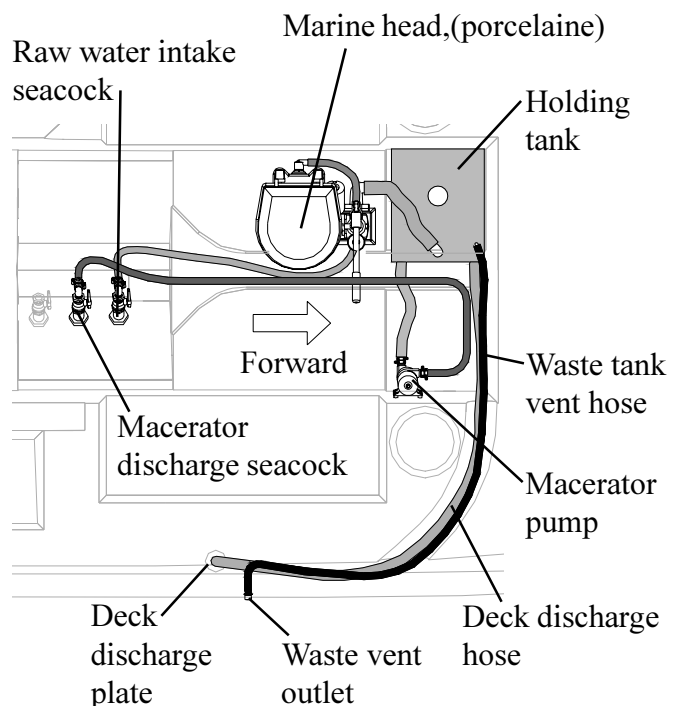
Standard Head Arrangement



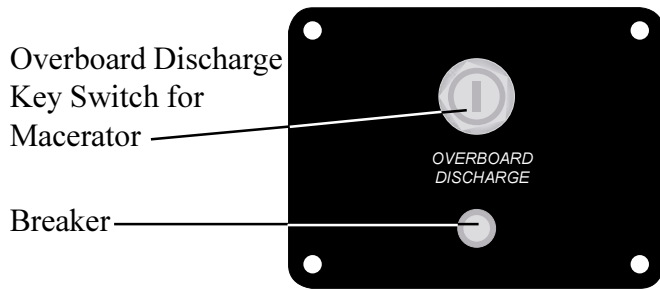
(optional) Sanni-potti unit w/ pump-out and overboard discharge



(optional) Marine head w/ pump-out, holding tank and overboard discharge



Hydraulic Steering Information



MACERATOR OPERATION:

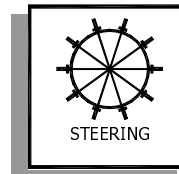
The macerator key switch panel is located on the forward section of the console cabin. The key switch controls the macerator pump. The raw water intake seacock and the overboard discharge seacock must be in the OPEN position prior to operation. The key must be turned and held for the macerator to operate properly.

MAINTENANCE:

After long periods of non-use, the macerator pump may not turn freely. Regular use of the system will reduce the chances of this occurring. If the system does require maintenance contact your nearest dealer for more information.

ENVIRONMENTAL CONSIDERATIONS:

The Environmental Protection Agency (EPA) standards state that in freshwater lakes, reservoirs, impoundments whose inlets or outlets are such as to prevent the ingress or egress by vessel traffic subject to this regulation, or in rivers not capable of navigation by interstate traffic subject to this regulation. Marine sanitation certified by the United States Coast Guard (U.S.C.G.) installed on vessels shall be designed and operated to prevent the overboard discharge of sewage, treated or untreated or any other waste derived from sewage. The EPA standards further state that this shall not be construed to prohibit the carriage of Coast Guard certified flow through treatment devices which have been secured so as to prevent such discharges. They also state that the waters where a Coast Guard certified marine sanitation device permitting discharge is allowed include: Coastal waters, Estuaries, The Great Lakes and Intercoastal waterways, Freshwater lakes and Impoundments accessible through locks and other flowing waters that are navigable interstate by vessels subject to this regulation. (40CFR 140.3)



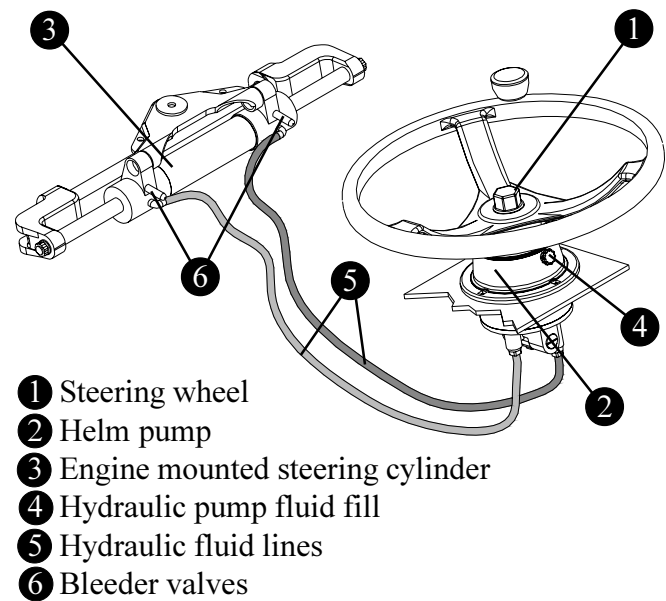
Your 270 Outrage is equipped with a teleflex, hydraulic, tilt steering system. The hydraulic steering system consists of:

- Steering wheel and helm pump unit
- Hydraulic steering cylinder at engine
- Hydraulic hoses and fittings

For your convenience there is a lever at the base of the steering wheel that can be pushed to adjust the tilt angle of the steering wheel.

OPERATION:

When turning the steering wheel either clockwise or counterclockwise, the helm pump forces hydraulic fluid through hoses to and from the steering cylinder which is connected to the tiller arm. The steering cylinder moves the tiller arm to port and starboard.



This view is not to scale, and is meant to reference the various parts that make up the steering system. See your owner's manual packet for more information regarding the steering system.

MAINTENANCE:

Proper maintenance of this system will ensure worry-free usage for the life of your boat. Steering system integrity is imperative when engaging in recreational water activities. Special care and attention must be taken to ensure proper performance of the steering system and should include the following:

- After the first few hours of operation and at regular intervals, check all fasteners and the complete steering system for security and integrity.

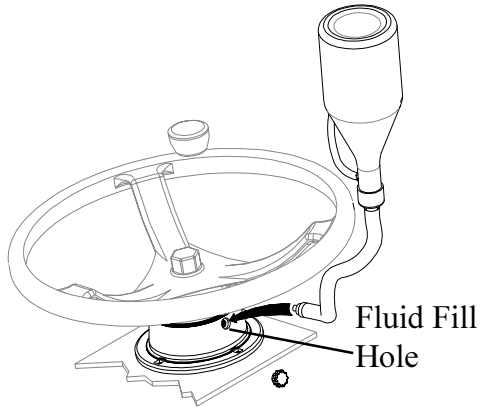
Gear Shift & Throttle Control

- Check all moving parts to be sure they are free of salt build-up and other foreign material.
- Inspect for corrosion. Any part affected by corrosion must be replaced.
- When replacing parts, self locking hardware must be used.
- Check the fluid level in the helm pump unit.
- Lubricate slides on the steering cylinder, using a waterproof grease.

All steering systems whether mechanical or hydraulic require regular inspections, periodic adjustment and occasional replacement may be necessary.

FILLING:

Your owners manual kit has a fill tube that can be used to replenish the hydraulic oil for the hydraulic steering system. Read the manual for complete information.



Power Steering Information

The Verado® engine(s) package comes with a power steering pump that is located under the motorwell access hatch. The major components of the pump system, (for filling & maintenance) is covered by a shroud. Remove the shroud and unscrew the cap to check the fluid level in the reservoir. There is a filter insert that needs to be checked and cleared if necessary. Fill as necessary. Make it a habit of checking the fluid level before each trip.

Use ONLY SAE 0W-30 Full Synthetic Power Steering Fluid when refilling the reservoir. The power steering pump's owner's manual will have all the information regarding care and maintenance. Follow all recommendations carefully.

The system is virtually maintenance free, aside from regular fluid checks and visually inspecting the outside of the unit for sign of leaks or damage.



CAUTION

Shift controls into **NEUTRAL** before starting engine. Shift only when engine is at idle. Reversing at high speeds can cause a flooding/swamping due to water being pushed over the transom.



NOTICE

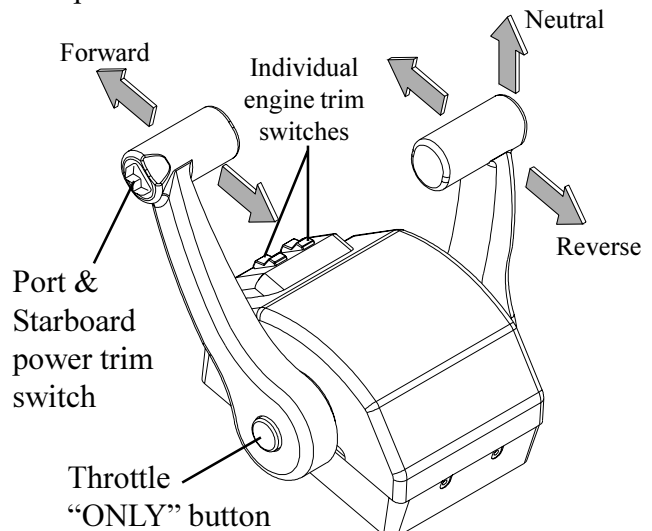
Wind and sea currents can change how your boat responds while in motion. Understanding your boat and its reactions at speed will make boating for you safer and more enjoyable.



SINGLE LEVER
CONTROL
(THROTTLE & SHIFT)

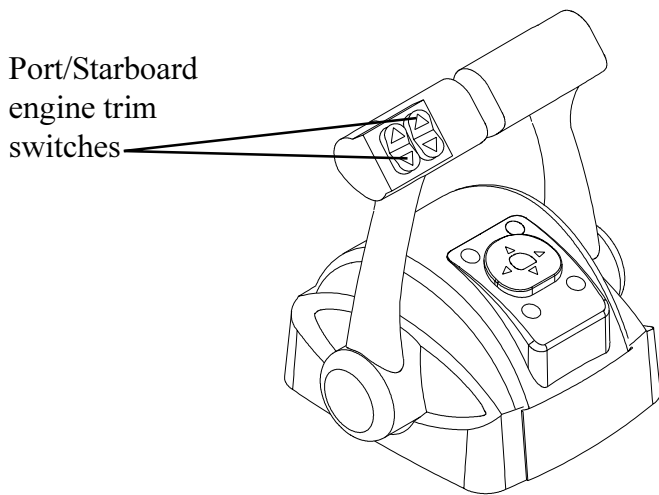
The 270 Outrage is equipped with a gear shift/throttle control unit mounted directly starboard of the steering wheel. The unit operates both shifting mechanism and throttle.

The control must be in the "NEUTRAL" position to start your engine. Neutral is the most upright position of the control unit and acts as an idle. There is a "THROTTLE ONLY" button at the center of the throttle control that when depressed will disengage the shifting mechanism and will allow you to operate the throttle without engaging the propeller. This button will automatically engage the shifting mechanism once the throttle control has been moved back to its center position (you will hear and feel a click when it is engaged). Moving the lever forward engages the forward gear and then the throttle advance. To reverse power, bring the control lever back to engage the reverse gear and increase the reverse thrust. The throttle control regulates the RPM of the engine. Regulating the RPM of the engine will control the speed of the boat.



Digital Throttle/Shift (DTS)®

Your 270 Outrage has the option of using a state of the art “drive-by-wire” gear shift and throttle control system. The Digital Throttle/Shift (DTS)® is the latest technology in recreational boating. There is a separate user's manual that will detail the various systems that can be controlled by the DTS®. Read and follow all instructions regarding the proper use of the DTS® system. The DTS® system can be monitored through the use of the SC5000 display. The SC 5000 will give you a visual readout of all functions regarding your boat's engine(s), direction, and applicable fluid capacities.

**Power Trim Operation**

The power trim & tilt system allows you to raise and lower the engine(s) outdrive for trailering, launching and beaching. The switch is a momentary switch; which means that constant pressure must be applied to the switch during the raising and lowering cycle. This also allows for ideal boat angle (in relation to the water surface) for a given load and water condition. In most cases, best all-round performance is obtained with the engine adjusted so that the boat will run at a 3° to 5° angle to the water. The power trim is located on the gear shift/throttle lever.

Boats can be operated in a manner and speeds resulting in trim angles that cause visibility to be obscured. Motor trim, hull trim plane and speed are factors that affect a boat's trim angle.

Engine Starting Procedure**NOTICE**

The gear shift /throttle control will not allow engine starting if the control levers are in any other position than NEUTRAL. Check the levers for neutral position before starting the engines.

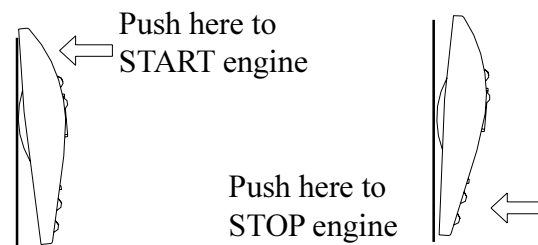
The 270 Outrage engine starting procedure is as follows:

- Make certain that the lower units of both engines are in the water.
- Insert keys into Port Master Ignition & Starboard Master Ignition switches, (located on the aft wall of the console cabin).
- Turn keys clockwise.

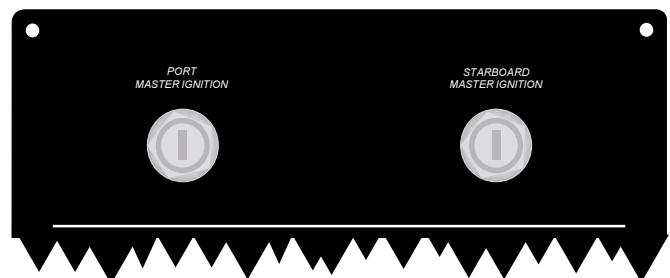
Note: Turning the keyswitches on from this location will not start the engines.

- There are switches on the helm instrument panel marked “Port Ignition” & “Starboard Ignition”. The upper section of the switches will need to be pushed forward.
- There are momentary switches located to the right of the ignition switches marked “Port Start” and “Starboard Start”. Depressing each switch will start the designated engine.
- Shutting down the engines requires pushing lower portion each “Ignition” switch forward (see detail) .

Profile view of the Port/Starboard Ignition button.



Breaker panel on the aft wall of console interior



Propeller Information

! DANGER

Disconnect power by moving the battery switch to the "OFF" position prior to removing the propeller.

! NOTICE

It is advised that you always carry a spare propeller, propeller hardware and propeller wrench on board. Should your propeller become damaged it can be easily replaced.

! NOTICE

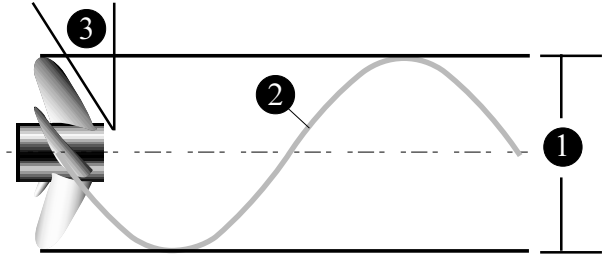
It Under no circumstance use a propeller which allows the engine to operate at a higher than recommended RPM.



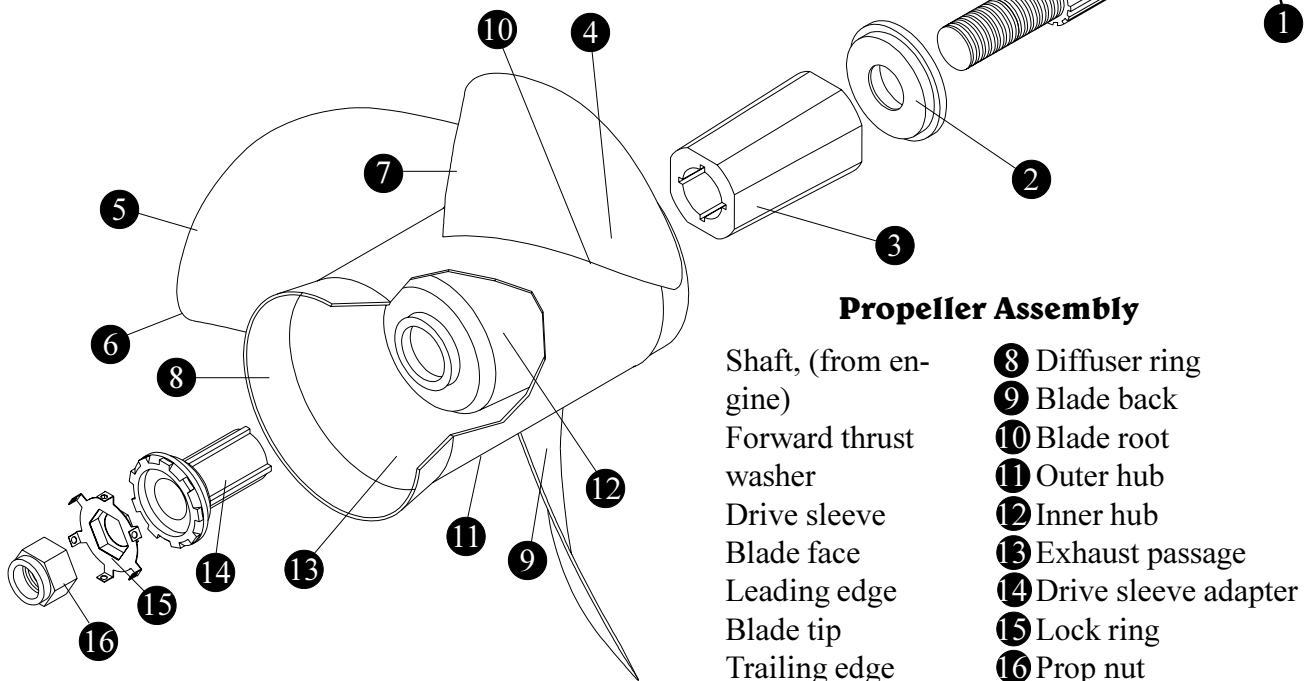
PROPELLER

The engine(s) on the 270 Outrage has been equipped with a propeller which our tests have shown to be best suited for general use under normal conditions and load. In some situations you may wish to change the propeller to give your boat slightly different performance characteristics. In general, changing to a lower pitch propeller will increase acceleration and load pulling capability, with a slight decrease in top end speed. All propellers are designed to provide maximum forward thrust, so the reverse thrust of the propeller will not be as efficient. If you choose to change propellers, the type should be discussed with your Boston Whaler® dealer.

In general, changing to a lower pitch propeller will increase acceleration and load pulling capability, with a slight decrease in top end speed. If you choose to change propellers, the type should be discussed with your Boston Whaler® dealer. All propellers are designed to provide maximum forward thrust, so the reverse thrust of the propeller will not be as efficient.



- ① Propeller Diameter
- ② 1 Revolution, (Pitch)
- ③ Propeller Rake



Propeller Assembly

Shaft, (from engine)
Forward thrust washer
Drive sleeve
Blade face
Leading edge
Blade tip
Trailing edge

- ⑧ Diffuser ring
- ⑨ Blade back
- ⑩ Blade root
- ⑪ Outer hub
- ⑫ Inner hub
- ⑬ Exhaust passage
- ⑭ Drive sleeve adapter
- ⑮ Lock ring
- ⑯ Prop nut

Trim Tabs



NOTICE

It is recommended that you check the level of the fluid in the reservoir before using your boat.



Your 270 Outrage is fitted with electrically powered trim tabs.

The trim tabs are located on the lower section of your transom and are used to trim the list of your boat caused by uneven weight distribution, too many persons on one side of the boat, or strong cross winds. An untrimmed boat will: decrease the visibility the pilot has, reduce fuel economy, increase wear on your engine(s). While accelerating there is some loss of forward visibility before the boat is on plane, the trim tabs can be used to adjust for forward visibility while underway. Read all information supplied by the trim tab manufacturer for its use and care.

OPERATION:

The trim tabs are controlled by rocker switches located on the center part of your console above the throttle control. Short momentary bursts of the rockers will achieve proper attitude of the hull. The trim tab switch is marked “bow up” and “bow down”.

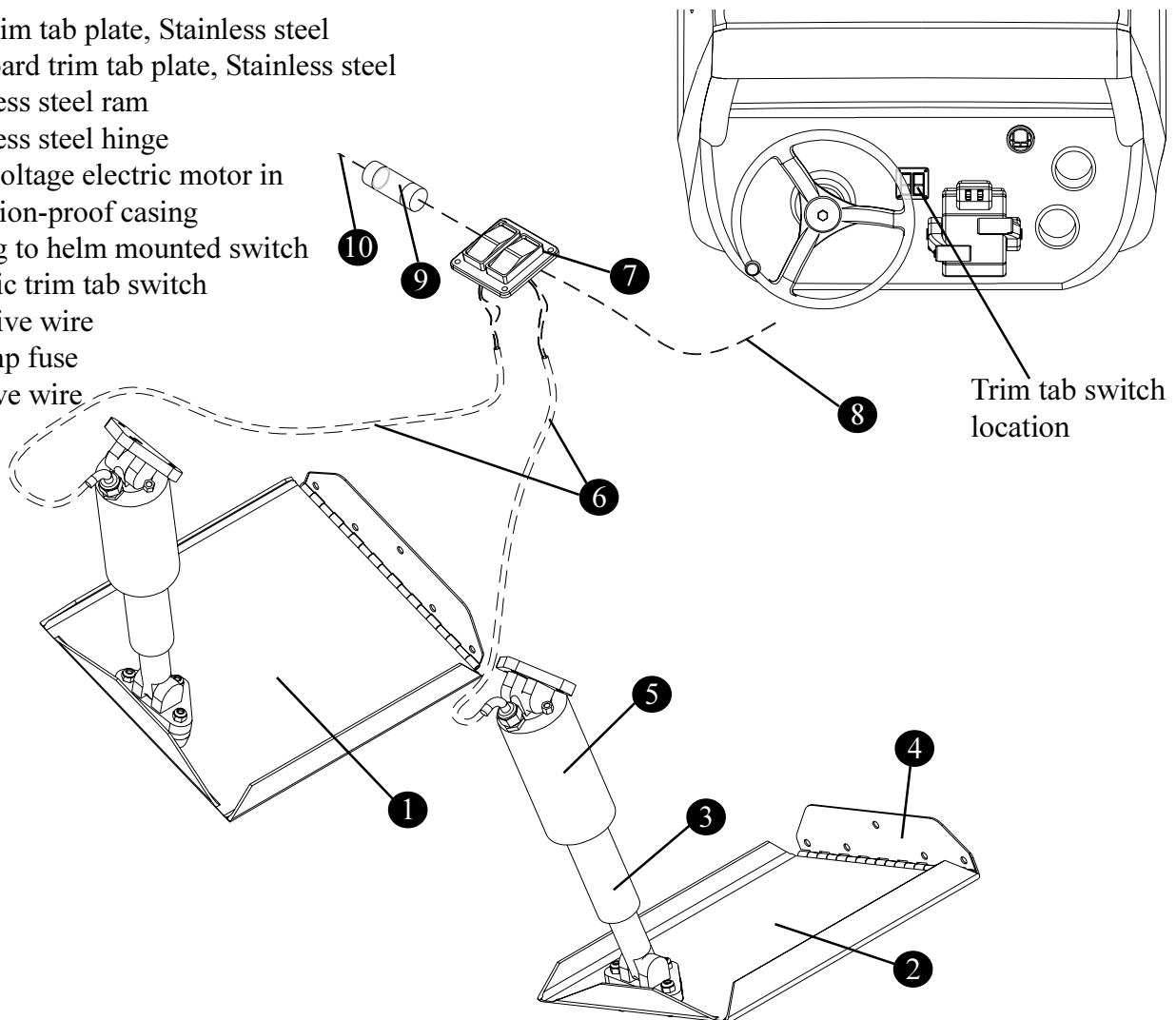
Using the trim tabs will:

- Level the boat; fore and aft.
- Reduce resistance in the steering system.
- Give you a smoother more stable ride.
- Speed will increase and there will be less strain on the engines.

MAINTENANCE:

The trim tabs are a completely sealed unit and are waterproof and maintenance free. Aside from a general cleaning when the boat is out of the water you should also inspect the planes and hinges for marine growth; remove as necessary.

- 1 Port trim tab plate, Stainless steel
- 2 Starboard trim tab plate, Stainless steel
- 3 Stainless steel ram
- 4 Stainless steel hinge
- 5 Low voltage electric motor in corrosion-proof casing
- 6 Wiring to helm mounted switch
- 7 Electric trim tab switch
- 8 Negative wire
- 9 20 Amp fuse
- 10 Positive wire



Trim tab switch location

Mooring Points

! DANGER

Use only the lifting points specified. Using the cleats for lifting is dangerous and could cause serious injury or death and damage to the boat.

! WARNING

Gelcoat surfaces are slippery when wet. Use extreme caution when walking on wet surfaces. Use care when waxing to ensure that walkways are not made dangerously slippery.

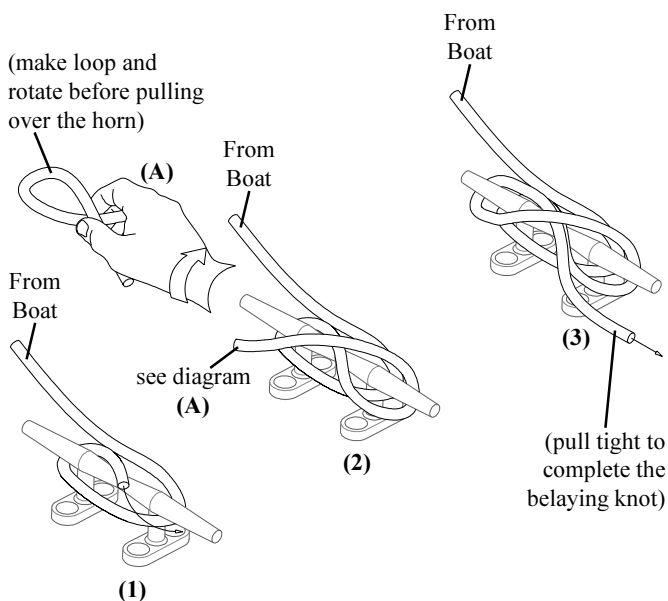


The 270 Outrage has (6) 8 inch cleats, two located at the bow, two located amidship and two located at the stern on the gunwale walls, between the under gunwale rodholders. The cleat

is used to secure the boat to the dock. While loading/unloading or mooring, please learn the proper way to secure the boat and how best to use the mooring points of your boat. The bow eye is used to haul and hold your boat onto a trailer. The stern eyes should be used as tie down points while trailering the boat. The bow and stern eyes can be used for short term lifting such as for service. Long term lifting with the bow and stern eyes can cause stress on the fiberglass and gel coat and is not recommended.

Below is a simple diagram that shows a belaying knot; commonly used to secure a boat to a dock.

This knot is will hold fast and is simple to release when needed.



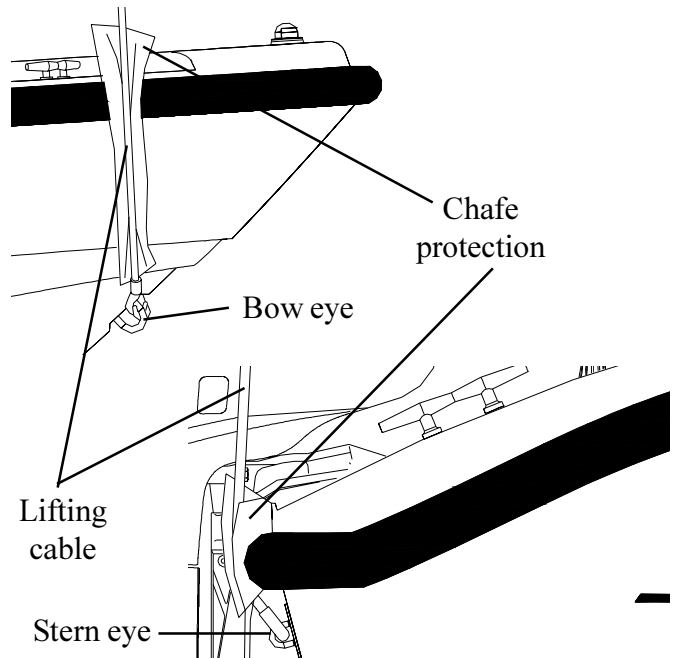
Lifting

Whether you are lifting your boat out of the water for routine maintenance or long term storage, there are some points to consider.

- If you are using a professional lifting service, it is prudent to check all credentials and ask for proof of insurance to protect your investment.
- Use a wide, flat, belting sling for lifting ,to minimize stress on the gunwales. Careful location of the sling is required.

DO NOT PLACE SLINGS WHERE UNDER WATER FITTINGS WILL BE IN CONTACT.

- If using a lifting hook, attach to bow eye and the stern lifting eyes mounted on the transom. Always use a spreader bar on the stern eyes and use chafing protection on the top of the transom.



Hull Maintenance

Clean the bottom of your boat of marine growth immediately, if the debris dries it will harden and will make its removal very difficult. Waxing of the exterior surfaces is recommended to be done at least twice a year to protect the gelcoat of your boat. Compounding may be necessary to remove more stubborn stains and chalking from the surface of your boat, compounding must be done after washing and prior to waxing. Check with your Boston Whaler® dealer on a compatible rubbing compound for your boat. When washing your windshield never use abrasive powders, gritty cloths or steel wool. Always use a damp cloth or a chamois when drying. Metal trim and fittings will stay bright if coated with a good grade metal polish or paste wax after washing. Stainless steel is strong and corrosion resistant, but still requires maintenance to keep its appearance. Crevice corrosion, a brownish coloring; occurs where two pieces of stainless hardware meet.

This condition is caused by impurities in water and air and can be cleaned easily with a good grade marine polish using a sponge, cloth or small bristled brush (for nooks and crannies).

Hull Maintenance, (Blisters)

The fiberglass and resin structure of your boat is porous (intrusion of water into the gelcoat will take some time). Blistering is caused by water soluble materials in the hull laminate. The effect of osmotic pressure allows water to impregnate below the gelcoat and substrate; forming a blister. There have been extensive university studies funded by the United States Coast Guard regarding the cause and effect of blisters forming in the gelcoat of fiberglass boats. Fiberglass blisters can form in near-surface layers of the gelcoat to very deep into the fiberglass structure. The damage can range from cosmetic to catastrophic, (although the latter is a very rare occurrence). The studies seemed to point toward long term immersion of the hull in warm water as a primary cause of hull blisters. Stress cracks on the hulls below the waterline also contributed to the formation of blisters on the hull. There are a variety of ways to prevent the formation of hull blistering: Epoxy coatings can be applied to the hull, followed by hull painting.

An alkyd-urethane-silicone marine paint can also be used to aid in the prevention of hull blisters.

Reducing the amount of time that your boat stays in the water also helps prevent hull blisters from forming. Use of a trailer or boat lift will reduce the likelihood of hull blisters forming. Be sure to use a bunk type lift or trailer for long term storage of the boat out of water. If blisters are present in the hull; they need to be properly cleaned and dried out before any barrier protection can be applied. Contact your Boston Whaler® dealer for more information on prevention and treatment of hull blisters.

Bottom Painting



DANGER

There are risks and dangers inherent with the use of paints and solvents. Dispose properly of all rags, rollers and trays used for painting. Follow all the precautions and regulations listed by the manufacturer before and after painting your boats hull.

Painting the bottom of your boats hull is a good way to slow the formation of hull blisters, and also keeping bottom growth (fouling) under control. To determine the waterline, you will need to place the boat in water and with a full load of fuel and gear, mark the waterline. Measure above the marked line 1 to 3 inches for placement of the tape line. Masking tape is not recommended for the types of paint you will be using. Preparation is the key to a successful hull painting. If the hull is bare, the gelcoat will have to be dewaxed before sanding can begin; otherwise the wax will be dragged into the scratches and will reduce the adhesion properties of the paint. After the dewaxing is complete, light sanding with 80 grit paper is recommended. Proper ventilation and capture of the dust created by sanding is essential. The dust created is toxic and should not be breathed. A proper fitting respirator must be used. DO NOT use a paper filter mask. The paint can be applied after sanding and cleaning is complete. Follow the manufacturer's recommendation for applying the paint. Humidity and weather will play a role in how and when the paint is applied. Several thin layers are better than one thick layer.

270 Outrage-Owner's Manual

Vinyl Care

Make sure that there is enough paint left to cover areas that were not accessible, (slings, jackstands etc.) and paint accordingly. Follow the manufacturer's recommendation for do's and don'ts after the painting is complete. If the hull bottom is already painted, you must be sure to test the paint's adhesion to the already painted surface. If the paints are incompatible, the new paint will not adhere to the hull bottom or the paint will "Lift" the old paint. NEVER apply paint without first preparing the old painted surface. The paint is designed to resist algae growth which means it has chemicals embedded in the paint that are harmful if ingested. Take all necessary precautions required before painting or repainting your boat's hull. Painting your boat's hull will adversely affect the boat's speed and performance. If your boat will spend most of its time in the water, it might be a good idea to paint the hull bottom, if you will be trailering the boat to and from the water, you might want to forgo the painting. This is an abbreviated section on painting your hull bottom. Your Boston Whaler® dealer should have information on properly painting your boat's hull or recommendations on businesses that will paint your hull for you.

Painted Hull Care (Bottom)

The painted hull bottom will need to be inspected annually. Any growth will affect the boat's performance and overall look. If it has been a while between inspections you might notice algae or slime growth. This can be cleaned with a coarse towel or soft bristle brush. The growth should be cleaned immediately after the boat has been removed from the water. If the growth is allowed to dry it will be that much harder to remove. If the growth is more severe, you may need to enlist the services of a professional hull cleaning company. Fresh water, salt water and water temperature can all affect the types of growth that you will find on your boat's hull.

The vinyl cushions on your 270 Outrage will keep their appearance and suppleness if cared for properly. Salt water, salt residue, dirt, ultra-violet rays etc. will take their toll on vinyl products causing them to lose their luster and texture. A thorough cleaning with a good vinyl upholstery cleaner will keep the vinyl soft. Keep the vinyl dry to prevent mildew, make sure there is no moisture between the cushions.

Long Term Storage



CAUTION

Never start or run your outboard (even momentarily) without having water circulating through the cooling water intake holes in the gear case. This will prevent damage to the water pump (running dry) or overheating of the engine.



NOTICE

Periodically haul the boat out of the water and scrub the bottom with a bristle brush and a solution of soap and water. For better protection paint the hull below the waterline with a high grade anti-fouling paint.



NOTICE

Store the batteries in a cool, dry location. Keep the batteries in their plastic boxes. Periodically check the batteries during storage.

Storage or winter lay-up will require you to make sure that your boat and its systems are properly conditioned for extended periods of non-usage.

It is important that you follow all the recommenda-

tions set by the engine owner's operations manual. It will give you a schedule of when these important functions need to be done.

ENGINE:

Protecting your engines vital moving parts from corrosion and rust caused by freezing of trapped water or excessive condensation due to climatic changes is very important. Internal engine parts can be effected by rust due to lack of proper lubrication. Freezing water in the engine can cause extensive damage to the internal moving parts.

FUEL SYSTEM:

Tank(s), hoses, fuel pump and carburetor should be treated to help prevent the formation of varnish and gum. Temperature extremes cause condensation to accumulate in the fuel tank(s). Empty gas tanks collect condensation which could lead to fuel contamination and/or premature wear of your system.

TRAILER STORAGE:

If you will be storing the boat for an extended amount of time on its trailer, you will need to lift the trailer off of its wheels. Use care when raising the trailer. The surface should be level and conditioned to accept the weight of the boat and trailer and allow for adequate drainage. Covering the wheels will protect them from harmful UV rays. Repeatedly immersing the trailer in water during boat launching can cause a variety of problems. Water seeping into the wheel hubs will cause the grease to emulsify and can prematurely corrode the bearings. Check with the trailer manufacturer for scheduled maintenance of you trailer.

ELECTRICAL SYSTEM:

The battery should be removed from the boat. Remove the negative (-) cable first, then the positive (+) cable and the battery given a full charge. Clean the external surface of the battery and check all water levels before and after charging. Grease both terminals and bolts on the cable ends.

DRAINAGE:

It is important to raise the bow of the boat enough to allow for proper drainage of water from the deck and bilge area. Make sure all the drainage fittings are clear and free of debris. Store the engine in an upright position to promote adequate drainage of water.



NOTICE

NEVER trailer the boat with the sun-top in the open position. Damage to the frame, canvas and securing straps can occur. Use the protective boot when the sun-top is being trailered or stored.

Chafing, fiber wear from dirt and grit and deterioration from ultraviolet light can cause your canvas sun top and covers to degrade over time. The effects of ultraviolet light can sometimes be reduced by chemical treatment of canvas items. Consult your Boston Whaler® dealer or check with your owner's manual before using any chemical treatments on your canvas. To keep the canvas and metal parts in good working condition and keep a good appearance, you will need to keep them clean. The fabric should be cleaned regularly before substances such as dirt, pollen, etc. are allowed to accumulate on and become embedded in the fabric. The fabric can be cleaned without removing the framework.

Simply brush off any loose dirt, pollen, etc. hose down and clean with a mild solution of a natural soap in lukewarm water (no more than 100 ° F. 38° C.). Rinse thoroughly to remove soap. Allow the canvas to completely air-dry. After each use especially in salt water areas, rinse the canvas completely with fresh cold water. Let the canvas dry completely before stowing. All metal components of the canvas frame should be rinsed with fresh cold water and exposed components wiped dry to maintain appearance and working order.

Lubricate the snaps of the canvas with petroleum jelly, use a parafin wax on the zippers to keep them in proper working order. If you have stubborn cleaning cases call your Boston Whaler® dealer for proper cleaning procedures.

Do not use bleach or solvents to clean the canvas material.

Trailer(optional)

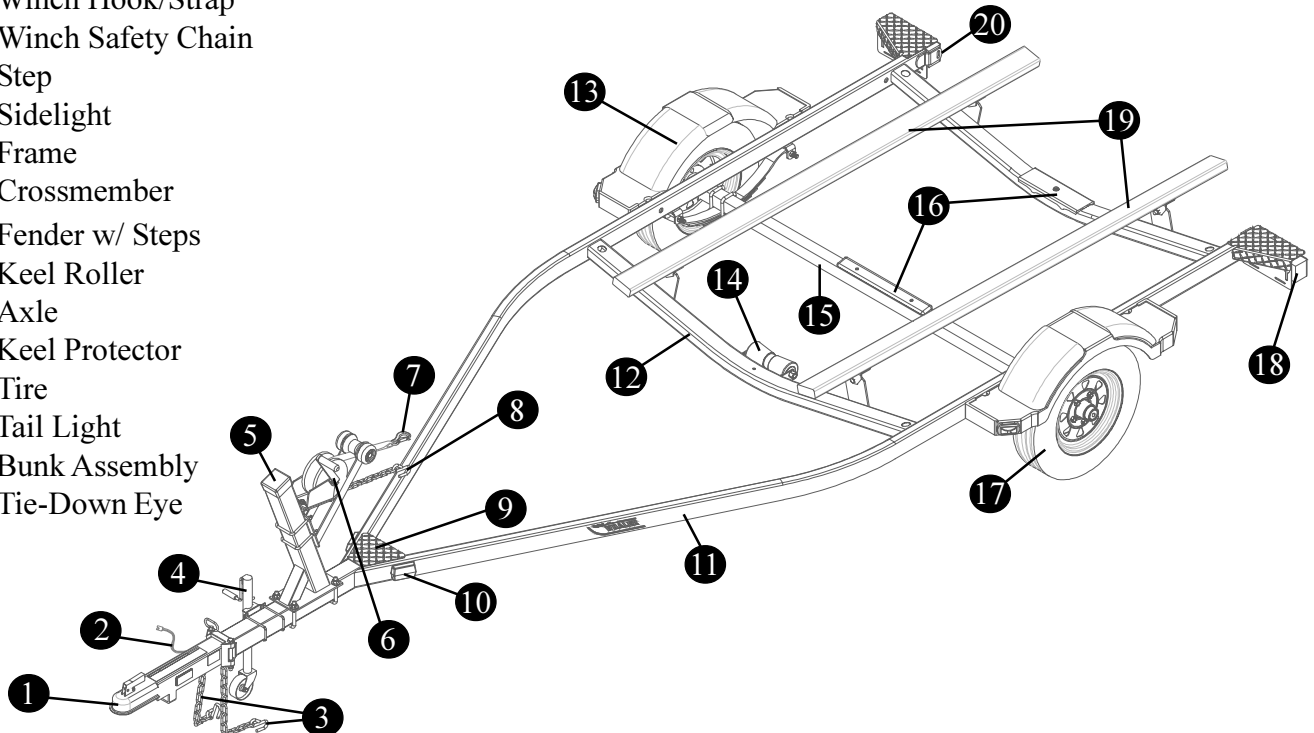
Your 270 Outrage has the option of being fitted with a galvanized trailer. This trailer is best suited for your boats length and width. If you have a trailer or plan on purchasing a trailer separately; there are some points you need to consider. Having a center roller and keel guards will help provide good support for the keel, also provide good fore and aft support. Trailers equipped with rollers instead of bunks can damage the foam sandwich hull of your boat and should never be used. Bunks provide a more even weight distribution.

Trailer Safety:

There are features that will keep your trailer secured to the tow vehicle: The safety chain attaches to the bow eye and will keep the boat from sliding off the trailer in the event that the winch strap or cable breaks, hook this up first. **Refer to the engine owner's manual for proper engine support while trailering.**

Bunk Trailer Terminology

- ① Tongue/Ball Hitch Reciever
- ② Trailer light connection, (4-pin)
- ③ Safety Chains
- ④ Tongue Jack
- ⑤ Winch Stand
- ⑥ Winch Assembly
- ⑦ Winch Hook/Strap
- ⑧ Winch Safety Chain
- ⑨ Step
- ⑩ Sidelight
- ⑪ Frame
- ⑫ Crossmember
- ⑬ Fender w/ Steps
- ⑭ Keel Roller
- ⑮ Axle
- ⑯ Keel Protector
- ⑰ Tire
- ⑱ Tail Light
- ⑲ Bunk Assembly
- ⑳ Tie-Down Eye



Tie-down straps can be used to secure the boat from the stern. The tie-down straps hook into the tie-down loops on the trailer frame to the lifting eyes on the transom. Padding (or similar) chafe protection should be used where the tie-down strap come in contact with the hull. A properly matched trailer hitch ball and coupler is important. **NEVER USE A HITCH BALL AND COUPLER THAT ARE NOT MATCHED.**

Make certain that the coupler and the hitch ball are properly seated and locked. Safety chains are also important; the chains are connected to the trailer and should be of sufficient length to reach the frame of the tow vehicle and should be long enough to allow the tow vehicle to turn without binding or tensioning.

DO NOT SECURE THE CHAINS TO THE BUMPER



DANGER

Tie-down straps should never be used by themselves, they are only used to help in keeping the boat secured to the trailer. Make certain that the safety chain is properly secured to the bow eye.



NOTICE

Your warranty may be void if you use a trailer with rollers. Use a trailer with bunks **ONLY**

Anchoring Information



WARNING

SWAMPING HAZARD—Anchor from the bow if using one anchor. A small current can make a stern anchored boat unsteady; a heavy current can drag a stern anchored boat underwater.



NOTICE

There are a variety of anchors with a variety of uses. Discuss the types with your dealer to find the right type for your boat.



The 270 Outrage is equipped with an anchor storage compartment located in the bow of the boat. Wind and sea conditions can affect the boat. The boat is not moving through the water, and

without headway there is no control.

Note: before using the anchor be sure the anchor line's bitter end is secured to the eye in the bottom of the anchor locker.

STAY ALERT! Be sure that the anchor will hold under all circumstances if you are leaving the boat.

Understand the principles of rode and scope and their effect on anchor performance.

The rode is the line connecting the anchor to the boat. Nylon line is ideal because it is light, strong and stretches, it also can be stored wet and is easy to handle. Add a length of chain between the anchor and the nylon line to prevent abrasion of the line. The scope is technically defined as the ratio of rode length to the vertical distance from the bow to the sea floor. Scope also depends on the type of anchor, tides, winds, sea conditions and type of sea floor the anchor is in.

Minimum is 5:1 for calm conditions

Normal is 7:1

Severe conditions may require a 10:1.

Since you want to know how much rode to use when anchoring, use this common formula:

Rode length = (bow height + water depth) x

Scope

*Scope factor may range from 5 to 10 or more.

Any number less than 5 and the anchor breaks away too easily.

Lowering the Anchor

Be sure that there is enough rope for the depth of water you will be anchoring in, and secure rode to both the anchor and the boat.

- Stop completely before lowering the anchor.
- Keep feet clear of coiled line as it pays out.
- Turn the anchor light on at night or during reduced visibility.

Setting the Anchor

There is no best way to set an anchor. Experiment to see how it performs. One method is to turn the rode around a bitt or a cleat and slowly pay out as the boat backs from the anchor site. When the proper scope has been reached snub the rode quickly, causing the anchor to dig in to the sea bottom.

- Reverse the engine slowly to drive the anchor in and to prevent it from dragging.
- Secure the rode to the bitt or cleat.

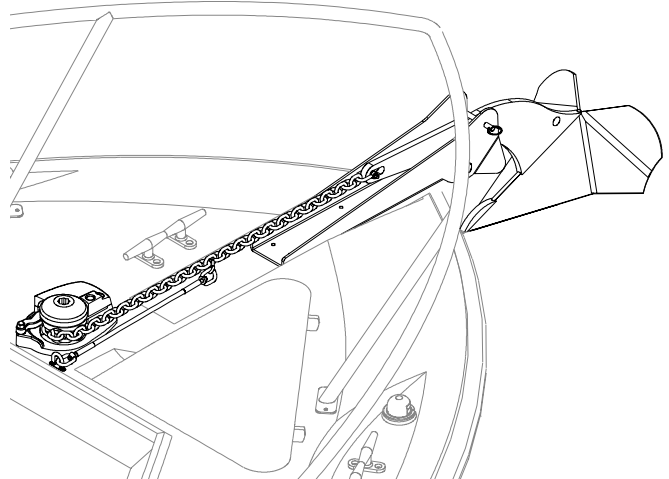
Weighing the Anchor

To weigh (or retrieve) the anchor, start the boat and run slowly up to the anchor, taking up the rode as you go. The anchor will usually break out when the rode becomes vertical. Coil lines to let them dry before stowing.

BE CAREFUL THAT THE TRAILING LINES DO NOT FOUL IN THE PROPELLER.

Be sure to read the owner's manual supplied by the anchor windlass manufacturer before using the anchor windlass. Follow all recommendations and instructions regarding its proper use and care.

Anchor shown in the stowed position (anchor is shown for reference only).



Anchor Windlass (optional)



DANGER

Always use the anchor windlass switch on the helm first. If operation cannot be made from the helm, use the hand remote located in the anchor locker. It is advised that operation of the anchor windlass be done from inside the boat.



NOTICE

Be sure to read and fully understand the anchor windlass owner's manual before operating the anchor windlass.

The anchor windlass is located directly port of the anchor locker. The anchor windlass gives you a mechanical means of raising and lowering the anchor. OPERATION:

The anchor windlass is controlled by a switch located on the helm, forward of the gear shift/throttle control. The switch is a momentary type switch; which means that there must be constant pressure applied to the switch to operate the anchor windlass. Power is controlled by a push/pull button located to the left of the operation switch. There is a power indicator light that illuminates when the switch is powered. The anchor windlass comes with an anchor lanyard. The anchor lanyard is a system that locks the anchor and rode in place and secure when the boat is underway.

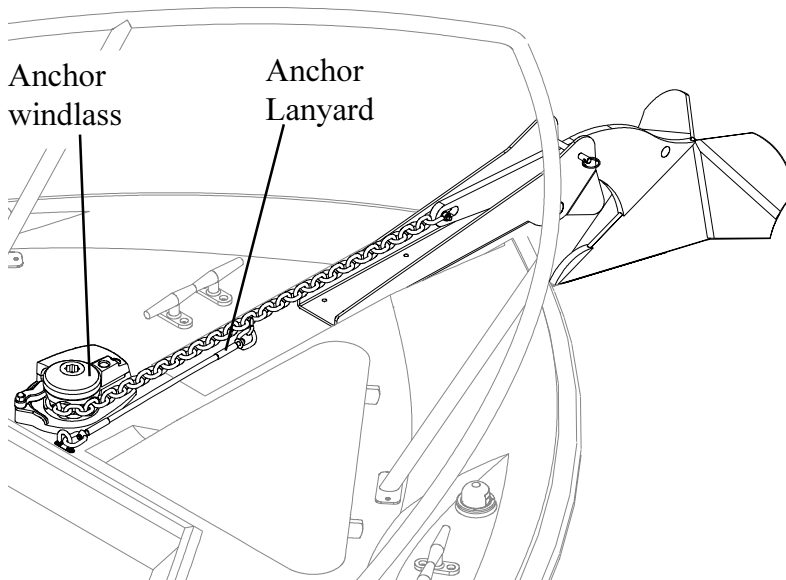
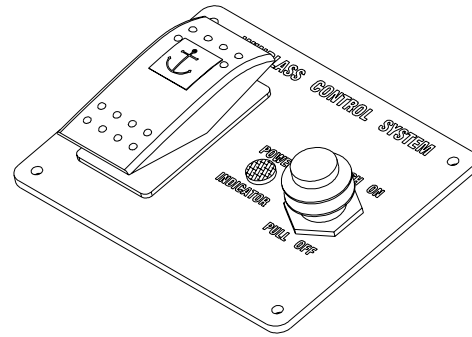
LOWERING-Pushing the top part of the switch down will power the anchor windlass DOWN. Make certain that the anchor lanyard carabiner is detached from the chain and is clear of any moving parts of the anchor windlass.

RAISING-Pushing the lower part of the switch will power the anchor windlass UP. Once the anchor and rode is secure in the UP position, the anchor lanyard can be re-attached to the rode.

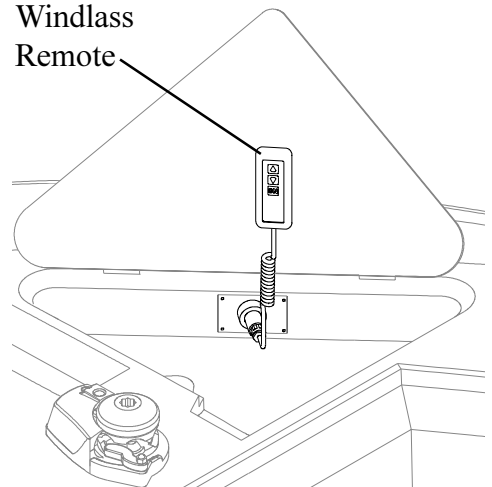
EMERGENCY OPERATION-There is a crank that can be used in case the power to the anchor windlass is lost. The top of the anchor windlass has a socket receiver that mates up with the crank.

LOWERING- Turning the handle clockwise will loosen the anchor windlass drum and allow the line to pay out. Tension can be adjusted to allow you control of how fast the line falls.

Anchor Windlass Helm Switch



Anchor Windlass Remote



270 Outrage-Owner's Manual

After the scheduled services are performed, fill out the areas below.

Maintenance Record

Date	Engine Hours	Serviced by	Maintenance Performed

Notes